



# EdQual

A Research Programme Consortium on  
Implementing Education Quality in Low Income Countries

## FINAL Report 05-11

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## Section One – Background Information

***Title of RPC:***

Implementing Education Quality in Low Income Countries

***Reference number:***

HD9

***Period covered by report:***

September 05 to September 11 inclusive

***Name of lead institution and Director:***

Graduate School of Education, University of Bristol, UK  
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***Key Partners:***

Department of Education, University of Bath, UK  
Kigali Institute of Education, Rwanda  
Institute for Educational Planning & Administration, University of Cape Coast, Ghana  
Faculty of Education, University of Dar Es Salaam, Tanzania  
Education Policy Unit, University of the Witwatersrand, South Africa

***Countries covered by research<sup>1</sup>:***

Zanzibar, Zambia, Tanzania, Botswana, Kenya, South Africa, Ghana, Rwanda, Zimbabwe, Pakistan, Mozambique, Seychelles, Mauritius, Lesotho, Swaziland, Malawi, Namibia, and Chile.

	Planned	Actual
Start Date:	01/08/2005	01/08/2005
End Date:	31/08/2010	31/08/2011

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<sup>1</sup> This includes countries covered by empirical research activities including the 14 countries involved in SACMEQ. It does not include all of the countries covered by the international literature reviews.

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## Section Two; Summary

EdQual is a five year<sup>2</sup> research programme consortium funded by the UK Department for International Development (DfID). It is one of three Research Programme Consortia in the field of education with the other two focusing on issues of access to education and outcomes from education. The aim of the RPC is to generate new knowledge to assist governments in low income countries, DFID and the international development community to implement initiatives that will improve the quality of education in ways that will benefit the poorest people in the world and will promote gender equity. The main focus for the programme is on the African continent. The consortium is led by the University of Bristol and other partners are the Universities of Bath (UK), the Witwatersrand, Johannesburg (SA), Cape Coast (Ghana), Dar es Salaam (Tanzania) and the Kigali Institute of Education (Rwanda). Despite the African focus, the RPC is also intended to have a more global reach and this is reflected in the inclusion of two associate partners, namely, the Aga Khan University (Pakistan) and in the Universidad de La Frontera (Chile). There are five main research projects in the areas of school effectiveness, language and literacy, ICTs in basic education, implementing science and maths curriculum change and leadership and management for quality improvement with three smaller scale projects<sup>3</sup>. Whilst the school effectiveness project uses multilevel modelling to perform secondary analysis of the SACMEQ<sup>4</sup> II data set, the remaining projects are intervention studies based on action research methodologies.

### Overarching findings from EdQual research

An objective of the research was to provide new knowledge and understanding of the factors that impact the quality of education in low-income countries. This section provides a brief overview of the most significant findings from the EdQual research in the context of policy debates and the wider literature.

*Suitably trained, experienced and motivated teachers.* Africa faces a severe shortage of suitably qualified, experienced and motivated teachers.. The recent McKinsey report on education systems worldwide, identified teacher quality and professionalism as the key ingredient for education quality. EdQual research focused strongly on how teachers' classroom practice can be improved given the social contexts, resource and policy environments in which they work. For training to impact positively on outcomes for disadvantaged learners it needs to be consistent with the demands of the curriculum. It must focus on improved pedagogical practices including the use of 'structured pedagogy'; effective teaching of language and literacy in multilingual settings; effective use of ICTs to support learning, and strategies to promote inclusion. Whilst short workshops can be effective for providing teachers with techniques to use in multilingual classrooms and with second language users, a more extended professional development input over one to two years is needed to transform teachers' practice in line with the demands of outcomes/competencies-based curricula now being adopted across a wide range of low and middle income countries. EdQual research in Ghana and in Tanzania shows the role that headteachers can potentially play in motivating teachers through providing localised incentives and professional development opportunities.

*Headteacher training.* School effectiveness research undertaken as part of the EdQual programme underlined the importance of school leadership for improving education quality. Case study research in Ghana and in Tanzania as part of the leadership and management project showed that effective leadership requires a shift in the traditional role of headteachers in Africa as 'custodians of property' to 'leaders of learning'. Effective headteachers focus on mobilising resources, using resources such as ICTs efficiently, developing and motivating staff, maximising time on task and empowering parents to support children's learning. They also play a key role in promoting inclusion and implementing girl friendly approaches. EdQual recommends that headteacher training should be mandatory for headteachers in Africa. Both training of headteachers should aim to develop capacity for innovation through use of action research or similar project work that cultivates independence together alongside dissemination of simple tools for evaluating school quality.

*Appropriate textbooks and learning materials.* School effectiveness research undertaken by EdQual confirms existing evidence to suggest that textbooks play an important role in raising learner achievement. Textbooks are critical for

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<sup>2</sup> A one year no cost extension was agreed with DfID in order to complete outstanding dissemination activities and this is detailed in previous annual reports.

<sup>3</sup> There are also three small scale projects in the areas of inclusion, school buildings and the use of ICTs in education to support community empowerment.

<sup>4</sup> In 2002, Southern and Eastern African Consortium for Monitoring Educational Quality collected pupil, class and school-level data from around 40 000 Year 6 pupils across 14 countries, namely Tanzania (Mainland), Zanzibar, South Africa, Botswana, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Uganda and Zambia.

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supporting the teaching and learning process, particularly in disadvantaged contexts and where teacher subject knowledge is limited. A key challenge identified in our literature reviews is the avoidance of corruption and mismanagement of resources that can prevent the right textbooks reaching disadvantaged learners. A key finding of the language and literacy project in Ghana and in Tanzania was that textbooks were not suited to the cognitive level and the language of the learner, making them inaccessible to learners. For textbooks to contribute constructively to learning outcomes in the African context, they must make use of established techniques for writing for second language learners and be appropriate to the cognitive level of the age group at which they are targeted.

*Investing in basic infrastructure and resources including ICTs.* Analysis of the SACMEQ data shows that investing in school buildings and in basic learning materials including ICTs can impact on achievement of disadvantaged learners. A key challenge for policy makers arising from EdQual surveys of headteachers in Ghana and Tanzania is to ensure that non-salary capitation grants are sufficient to meet need, are efficiently distributed to schools and more effectively targeted to meet the needs of disadvantaged learners. A finding from the EdQual ICT project is that computers are often not used for teaching and learning purposes and that schools and teachers need to be supported in their use.

*School feeding, child health and early childhood development.*

Evidence from the analysis of the SACMEQ data backed up by qualitative data from the leadership and management project in Ghana and Tanzania reveals that for the most disadvantaged learners, addressing issues of nutrition can have a relatively greater impact on achievement than in-school factors. Focused literature searches undertaken for EdQual projects on school buildings and on early childhood education review evidence that the provision of breakfast and of school feeding and nutrition programmes and of early childhood education can lead to improved scores in academic tests, especially for more socio-economically disadvantaged learners. Headteachers involved in the leadership and management project also identified nutrition as a key issue and several were successful in mobilising parents or the community to contribute towards school meals or snacks.

*Effective assessment, monitoring and evaluation.* Participation in international assessment exercises such as TIMSS and PIRLS can provide valuable information about existing levels of quality in national systems although caution is needed in interpreting data. The advantage of regional initiatives such as SACMEQ is that comparisons can be made with countries sharing similar socio-economic profiles. In the case of SACMEQ assessments can also be linked with pupil background, school context and process variables that provide insights into the determinants of quality. A key priority is to strengthen national systems of assessment, monitoring and evaluation including making available longitudinal data relating to schools and individual pupils. These can assist in identifying trends in achievement over time and can play an important diagnostic role in identifying strengths and weaknesses in the system, highlighting groups at risk of underachieving and areas for possible intervention. At the level of the school, EdQual research has highlighted the importance of making use of data as part of school self-evaluation and the importance of local support for schools in interpreting data and implementing change.

*A relevant and inclusive curriculum and pedagogy.* EdQual research in South Africa has highlighted the importance of teacher subject knowledge in implementing mathematics and science education and the importance of coherence in aims and content within and between phases of the curriculum. Pedagogy has increasingly been seen to lie at the heart of the debate about quality. For example the World Bank led Fast Track Initiative has supported a range of interventions to support reading. Within a rights based approach, the debate focuses on conceptions of learner-centeredness. EdQual's literature reviews have highlighted that successful initiatives share characteristics of 'structured pedagogy' i.e. they promote careful planning of lessons, with a clear introduction that links to the previous lesson and sets out learning objectives as well as use of formative assessment. They often encourage teachers to make use of a range of strategies including talking to the whole class from the front, question and answer with the whole class, individual exercises or reading, group discussion and practical activities depending on their context, learners' needs and subject matter.

*Medium of instruction.* A key issue is that of the medium of instruction used in schools. Regular use of the medium of instruction in the home and community environment is a good predictor of achievement. There is a polarisation in the debate about medium of instruction between those who believe that African led development is best served by using indigenous languages as the medium of instruction and those who argue for the use of European languages. Faced with conflicting perspectives and complexity, African countries are increasingly adopting a phased bilingual or even trilingual approach, favouring indigenous languages in the early years and global languages such as English in the later years. EdQual research has highlighted the reality that in many African classrooms a mixture of languages are used for teaching and learning and has focused on developing practical strategies for using more than one language in the classroom.

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*Effective school, home and community links.* EdQual analysis of the SACMEQ data points to the central importance of the home and community environment in relation to determining the quality of education particularly for the most socio-economically disadvantaged groups of learners. Living outside of a stable family environment, having a lack of basic resources including books in the home and a place to work, malnutrition and exposure to disease and lack of exposure to the medium of instruction outside of the school context are all predictors of low levels of literacy and numeracy. Attending a school where a substantial proportion of the pupils share one or more of these disadvantage indicators is also strongly and negatively associated with learning achievement, independent of the individual's background. Indeed, as the findings from the analysis of SACMEQ confirm, these variables are more significant in explaining underachievement than in-school factors, especially for low income groups. In low-income contexts, both paternal and maternal participation in formal education are strongly associated with reading abilities of children. The EdQual leadership and management research has shown the potential for schools to work more closely with parents to raise achievement through encouraging parents to ensure children are prepared for school (they have eaten breakfast and are equipped with exercise books and pencils). However, most schools have very little or no resource to practically support the most vulnerable children, through for example providing a meal, stationary or money for medicine to members of child-headed households.

### ***New practical initiatives to improve the quality of education designed.***

Besides generating new knowledge the research also aimed to develop new initiatives to raise the quality of education and to explore ways in which these can be mainstreamed. These initiatives are set out in detail in section four of the report.

- Teacher training materials including a teachers' handbook aimed at improving learner outcomes in multilingual classrooms were developed through action research and a series of practitioner workshops led by EdQual researchers in Tanzania (lead) and Ghana (second partner).
- In Rwanda, teacher trainers at the Kigali Institute of Education have been trained in the use of new software and in a model of professional development to support teachers in the use of ICTs and these have been incorporated into teacher training. The Rwandan team are currently working with other initiatives including the One Laptop Per Child initiative so that learning from the EdQual project can be shared. EdQual materials are being made available to practitioners online.
- A headteacher training handbook, toolkit and school self-evaluation materials have been produced by the leading and managing change project team in Ghana (lead) and Tanzania (second partner). The materials and the research on which they were based is being rolled out nationally in a Commonwealth funded leadership development project led by the EdQual team (Ghana) and supported by the Ghanaian government.
- Exemplar teaching materials and video clips aimed at improving teacher subject knowledge and pedagogic skills in the teaching of mathematics that have developed as part of the implementing curriculum change project in 6 schools in South Africa. The materials are being used in initial and continuing professional development activities by mathematics educators at the Marang Centre, University of the Witwatersrand.
- One of the EdQual PhD students, who is also employed as a senior data analyst by the Ministry of Education in Zanzibar has piloted a new approach to collecting and analysing 'value added' measures of learner outcomes based on the collection and analysis of longitudinal pupil level data. The intention is to mainstream the approach within the Ministry of Education in order to provide a more accurate measure of the quality of education at the school and system level.

### **Capacity development**

A key area in which EdQual has made considerable progress in achieving its purpose has been in developing sustainable research capacity to assist governments to implement education quality. The focus has been on developing the capacity of EdQual African partners to undertake research and development activities beyond the lifetime of the EdQual programme. EdQual has directly funded 10 PhD studentships. Nine of these have been successfully completed and the recipients of the grants have returned to their posts. The consortium has attracted additional funding to support a further 5 studentships from the Commonwealth Secretariat and the World Bank. The topics of the PhDs are linked to large scale projects. In Tanzania and Zanzibar officials from the Ministry of Education were given on the job training through participation in research teams. On-going project management and admin training and support was provided to African project partners. The research skills of researchers as well as participating practitioners were increased through the provision of 18 research training workshops linked to the African based projects. A key aim here was to develop North-South and South-South collaboration.

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### **Communication**

EdQual has developed its own communication strategy and this is summarised in section four. The areas for research were identified through a series of national consultative workshops with policy makers and practitioners. Highlights included national consultative workshops at the beginning of the programme and national dissemination workshops during the final year; a joint RPC event was held in Ghana and in London in which researchers from the other two education RPCs also participated. EdQual has contributed to reports by UNESCO and Plan international. Distinct communication strategies were pursued in each African country. Key policy messages were communicated through newspapers; key policy makers and influencers were regularly invited to workshops and in some instances participated in research teams. One-to-one meetings were also held with key high level policy makers and in Ghana a professional relationship of trust was established with the Director of Ghana Education Services. Policy maker awareness of research is evidenced by endorsements of EdQual initiatives in the African countries and EdQual researchers have also been invited to contribute to the development of national policy. EdQual has been successful in producing high quality publications including 22 articles in international peer reviewed journals and two journal special editions showcasing EdQual research. The names of Southern based researchers have appeared on 12 articles and 12 books chapters. EdQual researchers are contributing 9 chapters to a book in a prestigious series on education and development that is to be published by Routledge. EdQual researchers have produced 12 policy briefs, 6 newsletters and 28 working papers (see annex 6). EdQual has a dedicated website from which many of its publications can be downloaded (<http://www.edqual.org>).

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## Section Three; Highlights of the Research

In this section we present the research highlights of the programme against the research objectives set out in the log frame.

### Conceptual framework for understanding education quality

EdQual developed an overall framework that provides an understanding and definition of education quality and identifies the key inputs and processes necessary to implement a good quality education for disadvantaged learners in low-income contexts. The framework represents a synthesis of research findings from research studies and from systematic reviews of the literature undertaken as part of the research programme<sup>5</sup>. Drawing on the idea of human capabilities put forward by Amartya Sen, a good quality education is defined as one that

enables all learners to realise the capabilities they require to become economically productive, develop sustainable livelihoods, contribute to peaceful and democratic societies and enhance wellbeing. The learning outcomes that are required vary according to context but at the end of the basic education cycle must include threshold levels of literacy and numeracy and life skills including awareness and prevention of disease<sup>6</sup>.

The following principles have been developed by EdQual that have underpinned our research and outputs. They reflect our focus on disadvantaged learners in difficult delivery contexts.

**Inclusive:** All learners have the opportunity to achieve specified learning outcomes.

**Relevant:** Learning outcomes are meaningful for all learners, valued by their communities and consistent with national development priorities in a changing global context.

**Democratic:** Learning outcomes are determined through public debate and ensured through processes of accountability.

### The importance of context

What makes for a good quality education depends to some extent on differences in national and local contexts and on the needs of different groups of disadvantaged learners. The national consultative conferences undertaken at the inception of the research in partner countries indicated overlapping but different priorities with regard to education quality linked in part to different development goals. EdQual has therefore developed a framework for understanding education quality that seeks to take into account differences in context. The framework encourages policy makers to think about education quality in relation to changing national development needs, the kinds of schools that different learners attend and the forms of educational disadvantage faced by different groups of learners when considering policy options. A good quality education arises from interactions between three overlapping environments, namely the policy, the school and the home/ community. Creating enabling environments requires the right mix of inputs into each and accompanying processes that are key for ensuring that inputs get converted to desired outcomes. In terms of implementing and sustaining a good quality education, our analysis suggests the importance of paying attention to the interface between each environment and ensuring that enabling inputs and processes have the effect of closing the gaps that sometimes exist between environments, creating greater synergy and coherence. The above change model is reflected in the diagram below:

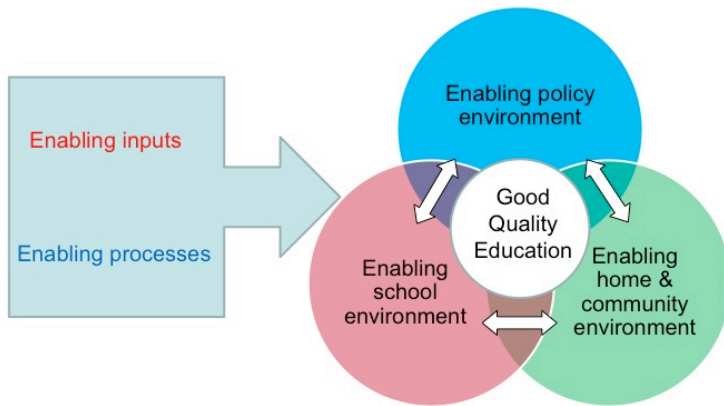
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<sup>5</sup> Further information regarding the evidential basis for the framework are provided in L. Tikly (2010) Towards a framework for understanding the quality of education, EdQual Working Paper no. 27. Bristol: EdQual.

<sup>6</sup> Whilst researchers in EdQual favour a broader definition of education quality, limitations in the available data has meant that our research has for the most part used levels of literacy and numeracy at the end of primary school cycle as a proxy for quality.

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Diagram one: a simple change model for implementing a good quality education



Where the context at home is not supportive of learning, in sub-Saharan Africa this is overwhelming due to poverty-related issues, then inputs need to be targeted at the school, in the form of school meal programmes, a greater supply of stationary equipment, teachers skilled in teaching second language learners. So policy also needs to respond to the additional needs of these communities both in the education sector and through provision of other welfare services and economic policies that promote sustainable livelihoods. Similarly, coherence between policy, particularly national curricula, and practices within schools improves education quality. But when policy runs ahead of the professional capacity of teachers then extra enabling inputs and efforts to change processes may be needed to improve quality. Socio-economically privileged sectors of society can invest private resources into the schools their pupils attend, attracting more highly skilled teachers and hence quality is improved.

The model draws on new understandings and indicators of education quality were generated by each of the large-scale projects and these are summarised below.

### **School Effectiveness and Education Quality (SeeQ) project**

The SeeQ project performed secondary analysis of the data set generated by the Southern and East African Consortium for Monitoring Education Quality (SACMEQ II) in 2000-2002 using multilevel modelling statistical techniques. SACMEQ administered reading and mathematics tests to around 40 000 pupils in 2305 schools across 14 countries. It collected pupil background information for all pupils sitting the test as well as class level and school level data. The tests were also administered to the literacy and mathematics teachers in 12 of the countries. SeeQ used multilevel techniques to separate out pupil level and investigate school level effects. The first phase of analysis involved developing models of school effectiveness across the 14 countries represented in SACMEQ II. The findings largely confirmed previous studies. The models were found, however, to explain less than 30% of total variation in scores and half or less of the school level variation. This suggested that a fourteen country model applied to the SACMEQ II countries is likely to miss essential differences between countries in the variation in background characteristics as it is applied to a relatively heterogeneous set of countries and that a 'one size fits all' approach does not necessarily discern all key factors pertinent to a particular country.

On this basis, the second phase of research adopted a more nuanced approach and aimed to construct and compare separate school effectiveness models for six low income (LI) countries (Uganda, Kenya, Tanzania, Malawi, Mozambique, Zambia) and for lower middle income (LMI) countries (Botswana, Namibia, Lesotho and Swaziland)<sup>7</sup>; and explore disadvantage associated with SES, gender and region in South Africa, Tanzania and Zanzibar respectively. In addition to the secondary analysis of SACMEQ, a PhD study linked to the SeeQ project sought to investigate the impact of using longitudinal data sets in educational assessment.

#### **i) School effects in Low income versus Lower Middle Income countries**

<sup>7</sup> The distinction between Low and lower middle income countries was based on how countries are classified according to the Human Development Index by the UNDP. Details are provided in the full SeeQ report.



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The school effectiveness model developed for the LI and LMI countries explained 47% and 30% total variation and therefore represented a better 'fit'. Given the focus within EdQual on LI countries it is worth highlighting the factors from the analysis of LI countries that were found to impact on numeracy and literacy scores:

Key **out of school** influencers on attainment include:

- Peer effects on the individual's learning in terms of the competence of their peer group in mastery of the language of instruction, overall level of undernourished pupils in peer grade and proportion of pupils who have high degree of absence from school-all have large a negative impact on individual attained scores;
- any repetition of grades has a large depressing effect on pupil score with slightly greater impact on an individual's reading score;
- eating less than two meals a day on average is associated with lower scores;
- enhanced scores in both subjects are associated with higher levels of paternal education. Maternal education is only influential on reading score in some contexts (particularly pupils attending urban schools and for secondary and higher levels of mother's education);
- home resources which facilitate study (lighting and access to a table) has a beneficial effect on learning;
- Kenyan and Tanzanian girls in general tend to underachieve in both literacy and numeracy, most especially in the latter; gender interacts with rural/urban context in ways that vary from country to country;
- only some evidence in localised contexts that school location per se is associated with differences in attainment, once socio-economic and other pupil background factors are accounted for.

Key **in school** influences on attained scores include

- School resources for teaching substantively enhance scores, especially availability of television or computer (depending on country context),
- Basic writing materials and a writing and sitting place for the individual are associated with increased scores,
- Good discipline within school, particularly creating a non-threatening, secure environment key to higher scores,
- Some positive effects on learning if community contributes to extra-curricular learning,
- Teachers who have undergone some formal training in mathematics teaching have a beneficial effect on pupils' learning in mathematics.

When compared with the findings from the LMI countries it was clear that the majority of pupil level variables associated with disadvantage are consistent across LI and LMI contexts. This is not surprising in that there are significant proportions of pupils living in absolute poverty in both contexts. Where the LI and LMI school effectiveness models differ is in the influence of parental education, most especially paternal education. In the LI context, fathers who have some formal education are associated with higher attained scores of their children compared to fathers who have not attended school. In the LMI context parents' level of education has not generally been found to be associated strongly with an increase in score. In several of the LI context including Tanzania, Mozambique and Zambia, girls attained significantly lower scores on average than boys in both subjects. Overall there was greater gender equity in the LMI countries (with the exception of Botswana where girls outscored boys in reading and in Namibia where girls underperformed in mathematics compared to boys). The findings suggest the need to be more nuanced in understanding gender differences not only between countries but in relation to different subject areas of the curriculum.

ii) School location in Zanzibar

The findings from the study of school location in Zanzibar highlighted regional differences in attainment particularly between the Main Island and Pemba. A further finding of interest was that Stone Town, the capital of Zanzibar, has the greatest amount of variation between pupils regardless of the school attended. This would indicate greater heterogeneity in pupil background compared to more remote and rural areas. The study suggests the need not only to

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target resources between schools but in some contexts in particular, to more effectively target resources within schools.

### iii) Gender and attainment in Tanzania

The findings from the study of gender in Tanzania served to underline the importance of paternal as well as maternal education for the achievement of girls. It also showed that boys' involvement in out of school paid labour is likely to have a greater negative impact on achievement than is the case with girls. School leadership and culture were shown to have a gender dimension in their effects. In schools where the head teacher reported pupils regularly using bad language, both girls and boys scores were affected. Boys' scores tended to be markedly lower in a school where the head reported that pupils physically hurt teachers/staff. Conversely, girls' scores were markedly depressed in a school where the Head reported that the bullying of pupils by teachers was a whole school problem. Indiscipline also affected boys and girls differently. Girls fared less well in a school where teachers bullied pupils whereas boys were negatively affected by a threatening whole school environment. Taken as a whole the findings suggest the need to focus in on the underlying processes within schools to better understand differences in attainment between girls and boys. They support the findings in the broader literature on the gendered nature of violence in many schools and the negative impact this has on female learners although it is also clear that boys' attainment can also suffer where there is evidence of physical violence. To some extent the impact of school processes on learning for girls and boys is explored in more depth in the qualitative studies.

### iv) Socio-economic status and attainment in South Africa

The study in South Africa focused on the impact of socio-economic status on attainment. Historical inequalities based on race and ethnicity in South Africa continue to be reflected in the continuing inequalities in the SACMEQ data between more highly resourced urban schools, township and rural schools. The SeeQ study shows that socio-economic status has become the biggest predictor of attainment although it is the complex interactions between a range of factors that are important in explaining achievement patterns. For example, even in well-resourced urban schools there are marked differences in attainment based on socio-economic status. In historically disadvantaged schools, peer effects on learning are particularly marked in year groups/classes where there are high proportions of repeaters and pupils who are struggling with fluency in the LOI. For pupils from the poorest social group, having less than two meals a day, home circumstances such as non-residence in the familial home during term and a lack of opportunities to practise the language of instruction all have a large, negative impact on attainment. For pupils from the poorest backgrounds, regular and proactive marking of work by the subject teacher has a positive impact on literacy scores. Conversely, over testing has a large negative effect on mathematics scores for all pupils. This could be due to too much contact time given over to testing at the sacrifice of conceptual teaching time and curriculum coverage.

### v) The use of longitudinal data sets in educational assessment

The Zanzibar project used value added methods involving innovative longitudinal datasets and quantitative methodology (multilevel modelling) to investigate secondary school effectiveness in Zanzibar. The aim was to examine the applicability of value added measures in this low income country context and investigate for the first time in the East Africa region the range and extent of school effectiveness using a longitudinal methodological approach. The possible explanations of any differences observed in school effects and the relevance and potential for using value added measures to enhance evaluation processes in Zanzibar were also explored. The findings indicated that statistically significant differences do appear to exist between Zanzibar secondary schools in terms of effectiveness, typically somewhat greater than countries such as UK and China and somewhat smaller than some sub-Saharan African countries such as South Africa, Kenya, Namibia and Uganda. Within individual schools there is also evidence of differential effectiveness for different student groups (by prior attainment and gender) as well as across curriculum subject areas. Importantly head teachers views on school process factors were found to explain some of the differences in schools value added results. A key finding from the study was that a value added school evaluation framework could promote systematic record keeping of student attainment and progress and support less effective schools in achieving equitable learning outcomes. This is because school self evaluation motivates teachers to improve their practices (see also the leadership and management study). Moreover, value added measures could feed into efforts to improve accountability and assist policymakers in identifying where best to focus improvement efforts and limited resources. However, value-added measures can only be meaningful in so far as assessment tools are reliable measures of learning and in some countries this may require investing in improving design of national examinations.

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### *Policy implications*

1. Monitor school quality: The multilevel methodology used to identify school variables associated with score can be taken by ministries of education, local or other sub-national educational authorities to monitor school quality using value-added measures. This needs, however: (i) A reliable test instrument to measure learning outcomes at two points in time (e.g. end of primary and end of secondary); (ii) Pupil identifiers linking test scores to individual pupils; (iii) capacity to use multi-level methods to calculate the value-added by schools using this data; and (iv) school leaders and ministry/local authority officials are trained or supported in interpreting results.
2. Target schools with large numbers of disadvantaged pupils: (e.g. undernourished, not exposed to LOI, high rates of absenteeism), based on analysis of school quality data if available. As girls tend to be disproportionately affected by disadvantage targeting is likely to improve national gender parity indicators.
3. Policies to promote gender equality need to be informed by contextualised gender analysis rather than assumptions based on international trends (e.g. girls in rural areas, boys in towns).
4. Put in place and provide ongoing support to competent headteachers. Evidence from school effectiveness studies in mainly Western countries for the powerful effect of an orderly school culture and high academic expectations are equally important in SSA but serious problems with poor discipline appear to be more widespread.
5. INSET and PRESET should include ‘assessment literacy’, i.e. skills in formative assessment, which is more effective than ‘teaching to the test’.

### **Leadership and Management of Change for Quality Improvement in Ghana and Tanzania**

The initial phase of the project in both countries encompassed a country-context review and meta-analysis of the quality of the basic school leadership and management initiatives. Thereafter, two needs analysis workshops were conducted in Ghana together involved 240 headteachers and one in Tanzania, involving 25 headteachers and five ward education coordinators, who oversee a cluster of six to eight primary schools. This informed the design of a baseline survey of 60 headteachers in Ghana and 34 in Tanzania, on headteacher characteristics (e.g. years of experience and training), school characteristics (e.g. resources, size), attitudes to issues such as gender equality and the school’s contribution to community development and how decentralisation had changed their work. The main phase of data collection involved facilitating 21 teachers in Ghana and 12 in Tanzania to run two-year action research projects to improve education quality for a group of students within their school that they had identified as ‘disadvantaged’. The action research therefore aimed at empowering headteachers with the knowledge and skills of engaging in school-based needs analysis; identifying critical challenges confronting their school’s implementation of quality education initiatives; identifying which individuals and groups of children within their schools were most disadvantaged; and designing, implementing and monitoring interventions targeted at those pupils.

### *Findings*

The baseline study found that 25% of head teachers surveyed in Ghana and 40% in Tanzania had not participated in any leadership training. In Ghana, the baseline study showed that the majority of head teachers at the primary school level did not see themselves as leaders who should take the initiative and act as change agents. Rather, they saw themselves more as administrators, whose primary responsibility lay in taking custody of school property, attending meetings, and implementing directives from local directors and supervisors. In Tanzania, head teachers regarded themselves as the frontline of the battle for universal primary education and were intensely interested in children’s realities and social contexts. Despite the increase in administrative responsibilities, head teachers still viewed themselves as responsible for supervising teaching and learning activities in the school, including teacher professional development. They also saw themselves as playing an important role with respect to promoting inclusion and gender equity.

Headteachers chose the action research issues. Three quarters aimed to improve attendance. A small number looked at improving learning outcomes in mathematics or reading and communication. One project focused on reducing girls’ exposure to sexual risk and one on generating evidence that would persuade district administrators to post teachers to the school. The over-reliance of the education bureaucracy on performance in end of primary examinations as an indicator of quality created an incentive to focus improvement efforts on the upper grades. In Tanzania, no headteacher chose to focus on improving learning in the lower grades. The headteacher –action researchers were

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supported through annual workshops, pairings with a headteacher in a neighbouring school also running an action research project, visits once or twice a term from a facilitator, who discussed their project with them and supported with pen and paper statistical analysis of attendance and performance data and provision of stationary for recording a research journal and collecting data through questionnaires.

Schools were already collecting data on performance and attendance and these data were carefully recorded. However, having techniques to analyse data enabled them to identify who was disadvantaged in their school and more persuasively mobilise teachers and community members to support action to address their needs (e.g. persuade teachers to monitor pupils with irregular attendance, persuade parents to prioritize providing children with pen and paper for school, persuade community members to raise funds to pay for a wholesome snack for pupils). Head teachers were deeply interested in and knowledgeable on the social and educational experiences of pupils, particularly disadvantaged pupils, in their schools. However, their perspectives on these were influenced by predominating social attitudes amongst educated segments of society, for example, towards uneducated parents and teenage pregnancy.

The action research projects enhanced participants' sense of agency and responsibility for their schools. As they recognised their capacity for producing positive change, a sense of resignation to poor learning conditions and low achievement was replaced by motivation and enthusiasm for school improvement. The most successful projects were run by headteachers, who were creative in drawing on the resources available to them within the school (e.g. gardens for growing food for malnourished children) and the local community (e.g. persuading local leaders to establish by-laws to prevent school children from entering bars and more informal drinking places). They also tended to have strong collegial relationships with other teachers in their schools and were observed to be approachable by pupils as well as staff. A minority of head teachers (two in Tanzania) failed to bring about any change. Their schools served communities with little or no capacity to support the school, because of poverty and also a large proportion of parents working away from the home. One of these schools was also chronically under-staffed so teachers, including the head teacher, had little time and energy to initiate change.

#### *Policy implications*

Head teachers are experienced professionals. Those who train and manage them should view themselves as facilitators, responsible for nurturing their innovative potential. They should aim to make use of head teachers' detailed knowledge of the local social conditions and their deep belief in education as enlightenment, transforming the lives of children, particularly those living in difficult circumstances. Enabling conditions for locally initiated quality improvement can be created by:

- involving school leaders in the design as well as the implementation of school improvement projects;
- identifying and re-distributing resources and allocating skilled staff to schools that are severely under-resourced, under-staffed, and have large numbers of disadvantaged pupils or serve especially poor communities;
- establishing school self-evaluation as part of the overall monitoring and evaluation process;
- considering incentive packages: the role of the head teacher, especially for those in disadvantaged schools, is becoming increasingly complex, demanding a range of financial, managerial, leadership and educational skills;
- setting up systems for analysing data collected by schools that allow schools to retain a sense of ownership of the findings as well as making them available to local education authorities and ministries of education; and
- investing in leadership training that facilitates head teachers development as reflexive leaders with skills for evaluating school quality and leading change. These include:
  - Collecting, recording and analysing information on school quality;
  - Presenting information clearly to mobilise staff and community members;
  - Working collaboratively with school colleagues and educational officers to solve problems; and
  - Reviewing the impact of changes implemented and reflecting on practice.

Further research is needed into the role of district level officers, as well as head teachers, in quality improvement.

#### **The Use of ICTs in Basic Education**

The project was conducted in Rwanda where computers are available in a growing number of schools and the government is prioritizing teaching of ICT in education as part of a strategy to move to a more knowledge-based economy through expansion of the service sector. Following a literature review on ICT in education, with a particular focus on Africa, two baseline surveys were established in 2006 and 2007. Staff of Kigali Institute of Education (KIE) then conducted collaborative professional development with teachers in 12 schools. The schools all served pupils with low SES and had some provision of ICT equipment. Three of the schools were primary schools and nine were secondary schools and the sample included both rural and urban schools. Teacher partners attended an annual

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workshop at the Kigali Institute of Education (KIE), and worked with a team from KIE, who visited their school regularly. During the workshops, teachers not only received training on using ICT in teaching and learning, but also spent time sharing experiences, learning from each other and reflecting on their classroom practice. Methods of data collection included classroom observations, video recordings of lessons, and focus-group interviews with learners and teachers separately.

The large-scale project was complemented by two doctoral studies by staff at KIE. Alphonse Uworwabayeho conducted collaborative action research with two mathematics teachers using geometry software in their classrooms. Jolly Rubagiza looked at how teaching and learning of the new ICT subject in secondary schools is gendered. The third was an evaluation of the NEPAD e-school Initiative in the Promotion of Community Health and Poverty Reduction in Kenya and Rwanda.

### *Findings*

The baseline surveys showed that many schools in Rwanda still did not have working computers. However, this situation changed rapidly during the lifetime of the project, in part due to the introduction of ICT as a compulsory subject at the secondary level. Young people were resourceful in accessing computers outside school, with 79% of those surveyed saying they had used computers for various social and leisure activities and/or for school work. 90% indicated that they accessed computers in internet cafés. However, in rural areas, young people had to travel further, usually using public transport, to access internet cafes, which effectively excluded girls and the very poorest.

In the first three years of the project it was observed that teacher partners started to use ICT in their mathematics lessons but tended to incorporate ICT into the dominant teacher-led lesson format. This was also the case in ICT subject lessons. It was only when in the last two years, a teacher educator from KIE worked closely with two mathematics teachers that a transformation of teaching style was seen. Together they designed and implemented a series of lessons using geometric software as tool with which they could explore, investigate and deduce geometric principles.

### *Policy implications*

1. Schools in Rwanda are acquiring computers. However, children and young, most especially in urban areas, are using computers in a more creative way outside of school. ICTs in schools have the potential to enhance teaching and learning across the curriculum and to develop the transferable ICT capabilities demanded by expanding service sectors.
2. If schools are to contribute towards bridging the so-called 'digital divide' then rural schools need to be supplied with computers and electricity. This may not be a priority for all low income countries but should be for a country with a development vision similar to Rwanda's. Additionally, girls need access to ICTs in an environment, which is safe and accessible without having to compete physically with boys. School should make ICTs available for students to experiment and explore with, to solve problems, synthesize and share information.
3. Provision of ICT in schools is only the first step. For ICTs to become a tool for improving teaching and learning across the curriculum, they need to be supplemented by teacher professional development. The form of professional development found to be most effective in previous research in UK and Chile as well as in Rwanda, consists of: (i) workshops in which teachers experiment and collaborate with available software in schools to develop resources and lesson plans; (ii) class-room based support from a trainer, who regularly observes and discusses practice with the teachers and (iii) encouraging teachers at the same school to develop their classroom practice as a team.
4. In Rwanda, it is recommended that the Kigali Institute of Education (KIE), which is responsible for pre-/in-service teacher training in Rwanda take a lead in organising such a programme both within the pre-service programme and within in-service distance training programmes.

### **Language and Literacy in Tanzanian and Ghanaian Classrooms**

Between 2008 and 2010 a team of researchers from the universities of Dar-Es-Salaam Tanzania, Cape Coast Ghana and Bristol UK conducted a study into the role of African and English media of instruction in schools in Tanzania and Ghana, within the Framework of the EdQual RPC. The study compared teaching strategies and classroom processes in subject and language lessons in a small sample of rural and urban schools in the year immediately before and after the switch of medium from Kiswahili to English, that is, the final year of primary education (Kiswahili-medium) and the first year of secondary education (English-medium). It also analysed textbooks in English and surveyed the opinions of parents, learners and teachers on the relative values of Kiswahili and English as medium of instruction (MoI). The team video-recorded lessons in baseline and main study phases of the research and introduced an intervention between

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these phases in the form of a short professional development workshop focussing on enhancing the role of language in Kiswahili- and English-medium lessons. Low achievement in African schools is partly language-related. Evidence shows that English-medium education in African schools with learners whose English language ability is low impedes learning; by contrast mother-tongue-medium education (MTE) enables teachers to teach and learners to learn more effectively. Initial short-term MTE has been used in many English-medium education systems in Africa for a long time, more recently being introduced in French-medium systems too. Governments and communities tend to support it for both cultural and community reasons, and because it helps early literacy. However, much research both from Africa and elsewhere suggests initial ‘early-exit’ MTE (e.g. four years or less) may not deliver strong academic benefits. In particular, it may not enable learners to learn successfully either through the African Language of Instruction (LoI) or later through a European LoI. Current evidence suggests strongly that if it is to deliver these academic benefits, initial MTE needs to be longer – a minimum of six years – and more cognitively challenging.

The EdQual research adds to this debate by providing data on the quality of classroom processes in classrooms taught in both L1 and L2 (English) in Tanzania and Ghana, and also on the readability of English-medium textbooks. While data is already available on the effectiveness of English-medium education in various African countries, very little of this looks at the detail of classroom processes or textbook readability. There is little research on the quality of classroom processes in MTE and comparison of the educational effectiveness of L1 and L2-medium education is rare. The research aimed to find out to what extent classroom processes in English and African LoIs differ in their pedagogical effectiveness, and whether short professional development workshops could increase this in either language. We also explored whether English-medium textbooks are readable for African learners. The research focused on the situation at the time of an official switch in LoI, which in Tanzania meant primary year 7 and secondary form 1 and in Ghana primary years 3 and 4, and looked at lessons in science, maths, English, and the local African LoI.

### *Findings*

A number of fundamental pedagogical strategies make up the fabric of classroom process and discourse. Teachers need, for example, to be able to explain concepts and give instructions clearly, to signal the course of lessons, to use visuals, to check learner’s comprehension, to question and prompt, to encourage responses from a wide range of learners, to offer opportunities for group and individual work and for cognitively demanding reading and writing. Learners in African schools are often disadvantaged because they have limited ability in the European LoI and thus find learning difficult. To enable them to learn, teachers need to use the full range of pedagogical strategies much more explicitly than if they were teaching in L1. There is evidence that many teachers in African schools, either because of limited language ability or limited training, employ a restricted range of strategies in the L2.

The Tanzanian data – and to a lesser extent the Ghanaian data –in this study suggests that when teachers teach in L1, their pedagogy is richer: they use more teaching strategies than in L2. In those lessons conducted in English, where more explicit use of a wider range of strategies is essential for learning, teachers, especially in Tanzania, in fact use fewer strategies, though they do use some which relate specifically to language acquisition and support. The data also shows that it is not difficult to provide teacher education which increases teachers’ pedagogical effectiveness in both languages.

Learners need to talk in order to learn. In L2-medium classrooms in Africa, learners have a greater need for talk opportunities than in L1-medium classrooms: firstly, they need to talk in order to develop concepts; and secondly, because their oral fluency in L2 is low, they need opportunities to develop it in the classroom. There is evidence that in African classrooms, as in many contexts elsewhere, learners say relatively little either in L1 or L2 either in plenary classrooms or in groups. This study suggests learners talk more when working in an African language and that targeted professional development in the form of 2-3 day workshops that focus on specific strategies to use with second language learners can increase opportunities for learner talk in both African languages and in English.

In both countries, a relatively small number of learners in both L1- and L2-medium lessons made a small number of short responses in plenary classrooms, though in Tanzania the number of respondents was larger in L1-medium classrooms. After intervention, Tanzanian learners generated more extended plenary responses in both L1- and L2-medium lessons. In both Tanzania and Ghana, learners had more opportunities for exploratory talk in groups and pairs in L1-medium lessons than in English-medium lessons. Opportunities to talk in groups and pairs increased in both types of lesson after intervention in Tanzania, but not in Ghana. However, in Tanzania, even after intervention teachers were still more effective in Kiswahili than English.

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Learners need to write in order to establish their understanding of curricular concepts. In African L2-medium classrooms they also need to write in order to develop limited writing skills in the European LoI. There is little research evidence for the amount or quality of writing either in L1-or L2-medium classrooms in Africa. The study suggests that, in these two contexts, learners have writing opportunities in both languages and that professional development can increase the amount of classroom writing. There were fairly regular opportunities for writing in L1 and L2-medium classrooms in both countries, though the quality of the writing tasks was not analysed and there is no data so far on the degree to which they were linguistically and cognitively challenging. In Tanzania there were more opportunities for writing in L1-medium classrooms, though writing opportunities increased after intervention in both types of classroom.

Learners need textbooks they can read. Learners in African classrooms have difficulty reading textbooks in European languages, firstly because their L2 reading ability is limited and, secondly, because textbooks may be difficult to read. The characteristics of textbooks that are accessible to learners with low ability in the LoI are known but not widely familiar either to the educational or publishing worlds. Textbooks in Africa are normally produced as if the readership was L2-fluent. Textbooks for African classrooms need to be designed to be particularly accessible for these learners, while remaining cognitively challenging. In both Tanzania and Ghana, textbooks in English were difficult to read, even for English-fluent learners, and were not written with English L2 learners (or teachers) in mind. English-medium Ghanaian textbooks were on the whole easier to read than Tanzanian textbooks. In Ghana, textbooks in the African LoI were not available.

In the past, a move towards mother tongue education has been opposed by parents, who value the international currency of a European language. Survey findings showed that in Tanzania teachers and parents recognised that fluency in the LoI was important for learning but also valued higher English fluency. Views were split between improving English fluency by introducing it as a LoI at the primary level or improving teaching of English as a second language at the primary level.

#### *Policy implications*

1. Language of Instruction and Mother-Tongue Education Learners learn better, and teachers teach better, in a language they speak well. Policy-makers should prioritise and extend the development of high-quality education in the mother tongue (MTE) as the basis for education in Africa.
2. Policy-makers should support advocacy and awareness-raising programmes aimed at increasing recognition of the educational value of MTE.
3. The effectiveness of teacher training and professional development both for teaching in African languages and for teaching in a European L2 needs to increase. The quality of initial teacher education for MTE and the quality of specialised teacher-education for subject teachers working in European languages should be improved. In-service programmes for teachers teaching both through an African and a European language that raise awareness of how language is used in the classroom and the needs of second language learners should be designed and implemented.

#### **Implementing Curriculum Change in science and mathematics education**

The Implementing Curriculum Change project had branches in South Africa, Rwanda and Pakistan. Due to changes to the original project plans<sup>8</sup>, each branch has evolved slightly differently also reflecting different national priorities and contexts. At a meta level, an overarching concern has been to investigate teaching practices in a sample of science and mathematics classrooms with pupils experiencing disadvantage related to socio-economic status within three countries where national curricula are already outcomes/competencies-based (South Africa and Pakistan) or are in the process of revision towards an outcomes-based structure (Rwanda) s that specifies cross-cutting learning skills related to problem-solving and critical thinking. Hence, teachers are required to make more use of so-called ‘learner-centred’ practices, in which the student is constructed as an active enquirer and the teacher as a facilitator of learning and not just a transmitter of knowledge. The project teams employed a range of methodologies including video recording lessons, interviews and analysis of text books and other learning materials. The teams also devised a range of interventions based on their findings and these were refined and developed through processes of action research with

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<sup>8</sup> The original implementing curriculum change project which was led by the South Africa partner had to be abandoned for a number of management related reasons that are detailed in previous annual reports. The South African PhD studies and the Rwandan and Pakistani components date to the initial project proposals and plans. The larger South African study reported here builds on one of the PhD pilot studies but is distinctively different in orientation to the original project plans reflecting changes in policy priorities and the foci of the new project team.

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teachers.

The main study in South Africa focused on effective practice for teaching mathematics in South African classrooms. The team examined 'coherence' in the teaching of the mathematical topic 'pattern' across phases in a sample of schools serving historically disadvantaged learner populations. Specifically, the focus was on understanding the nature and range of tasks selected by the teachers to use in their teaching across a sequence of lessons, as well as the instructions, explanations and questions that they used within their teaching –all of these facets had emerged as problematic in the pilot study. A PhD study in South Africa served as a pilot for the main study and investigated the coherence of classroom practice with the National Curriculum Statement for Mathematics at Further Education and Training (FET) Level in South Africa. The study indicates the limited opportunities available in mathematics classrooms for learners to master higher order cognitive skills. A second PhD study focused on the use of 'science talk' in a sample of FET science classrooms in Soweto. The emphasis was on creating a learner-centred strategy for facilitating meaningful student participation in whole class and small group discussions which deepened their critical engagement with science content. The Pakistani strand of the project studied the process of implementation in disadvantaged rural classrooms in Pakistan of the problem solving strand in Standard V of the national curriculum in mathematics whilst the Rwandan study explored teachers' perceptions of effective practice for teaching mathematics and science and on the basis of this developed and trialled interventions to assist teachers to raise the achievement of their learners.

The findings indicate a range of concerns related to policy implementation in a period of ongoing curriculum reform. In different ways, across mathematics and science education, there are indications of a clear lack of subject and pedagogic knowledge and this backs up evidence in the broader literature. There is also widespread evidence of a lack of coherence between ages and phases of the curriculum. Another key finding was a mismatch between the objectives of the curriculum and assessment practices. Thus whilst the new curricula demanded learner centred approaches, assessment practices often reinforced teaching to the test.

Professional development interventions were relatively effective in South Africa, where the intervention was more narrowly focused on one aspect of practice (use of argumentation); teachers were starting with a higher level of professionalism and the intervention was facilitated by only one teacher educator, who had an in-depth understanding of pedagogical theory. In Rwanda, change of practice that required teachers to transform their understanding of the teaching-learning process was achieved but only on a very small scale (with two teachers) after an extended intervention over two years. In Pakistan, change of a profound nature was achieved with a larger group of teachers but over an extended period of time.

#### *Policy implications*

1. The lack of coherence between the different levels of the curriculum needs to be addressed from the point of view of an understanding of how children acquire scientific and mathematical knowledge.
2. There is a need for greater emphasis on content knowledge within pre-service teacher education and this has been flagged in all of the studies.
3. More work is also needed to understand the mechanisms and conditions that might be required to improve content knowledge and pedagogical content knowledge in ways that feed into the classroom through continuing professional development. The work in South Africa, in Pakistan and in Rwanda provide examples of models through which such work might take place, whilst highlighting successes and concerns through rigorous analysis. They also highlight the extent of the logistical challenge of preparing teachers for new curricula that fundamentally revision the teaching-learning process, especially when teachers are starting from a low base in terms of their knowledge of educational theory. An important part of that challenge is to bring assessment practices in line with the curricula objectives so that more learner-centred practices can be demonstrated to improve examination performance.



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## **Section Four; Achievements: Research Outputs and Purpose**

### ***Programme outputs***

Full details of all EdQual outputs can be found in annex 5. Publications have been put into the public domain through the EdQual website (<http://www.edqual.org>); through publication on R4D and through the distribution of hard copies and CD versions of key research outputs at dissemination events.

### **Research reports**

EdQual RPC has produced a total of 22 research reports that will be available in the public domain through the EdQual website in August 2011. These include reports of consultative workshops with policy makers; literature reviews, baseline studies, and final project reports for each of the large scale projects.

### **High quality publications**

EdQual has been successful in producing high quality publications.

#### 1. Journal articles

EdQual has produced 22 articles in international peer reviewed journals. This has included two journal special editions showcasing EdQual research:

A.M. Barrett & L. Tikly (Ed.s) (2011) Education Quality for Social Justice, *International Journal of Educational Development* 31(1)

L. Tikly & A.M. Barrett (Ed.s) (2011) Research Education Quality in Low-Income Countries: Politics, Processes and Practice, *Comparative Education* 47(1)

The *International Journal of Educational Development* and *Comparative Education* have the first and the third highest impact factors of all journals in the field of international and comparative education. Two articles from the IJED special edition are in the top three most downloaded articles in 2011.

The names of Southern based researchers have appeared on 12 articles

#### 2. Books and book chapters

EdQual researchers are contributing 9 chapters to a book in a prestigious series on education and development that is to be published by Routledge:

L. Tikly & A.M. Barrett (Ed.s) (forthcoming) *Education Quality and Social Justice in the South: Challenges for policy, practice and research*. London: Routledge.

The names of Southern based researchers have appeared on 12 book chapters.

#### 3. Other publications

EdQual researchers have produced 12 policy briefs, 6 newsletters and 28 working papers (see annex 6).

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### **New initiatives developed**

EdQual has produced new initiatives linked to each of the five large scale projects

#### *Teacher training materials to raise learner outcomes in multilingual settings*

Teacher training materials including a teachers' handbook aimed at improving learner outcomes in multilingual classrooms were developed through action research and a series of practitioner workshops led by EdQual researchers in Tanzania (lead) and Ghana (second partner). The project involved six teacher trainers and teachers from 23 schools (20 in Tanzania; 3 in Ghana) where the materials were successfully piloted and evaluated. The materials are currently being used to train teachers in 3 teacher training institutions in Tanzania. The Tanzanian Institute of Education, which is responsible for developing national curricula and publishing school textbooks, in conjunction with the University of Bristol and the University of Dodoma is preparing a proposal to the Nuffield Foundation Africa Programme for funding to further develop and to mainstream the EdQual materials and roll out training in their use to teacher educators, textbook authors and curriculum developers.

#### *Teacher training materials to support the effective use of ICTs in the classroom*

Teaching with Computers Kits (TWiCKs) have been developed to assist teachers teaching mathematics and science. The materials have been developed in collaboration with 20 primary and lower secondary schools in Rwanda and are being used by teachers in these schools to improve learning outcomes and to facilitate more hands-on and learner-centred approaches to subject teaching. Teacher trainers at the Kigali Institute of Education have been trained in the use of new software and in a model of professional development to support teachers in the use of ICTs and these have been incorporated into teacher training. The Rwandan team are currently working with the One Laptop Per Child initiative so that learning from the EdQual project can be shared. EdQual materials are available to practitioners through the Teacher Education in Sub-Saharan Africa (TESSA) initiative. The team have been successful in attracting multiplier funding from the Allan and Nesta Ferguson Foundation (20k) to roll the professional development model developed by EdQual to science and mathematics teachers of lower secondary level to coincide with this level of education becoming part of the free and compulsory basic education cycle.

#### *Headteacher training materials*

A headteacher training handbook, toolkit and school self-evaluation materials have been produced by the leading and managing change project team in Ghana (lead) and Tanzania (second partner). The materials are the outcome of collaborative action research involving 33 primary school headteachers over a four year period. The materials and the research on which they were based is being rolled out nationally in a Commonwealth funded leadership development project led by the EdQual team (Ghana) based at the Institute for Educational Planning and Administration (IEPA) University of Cape Coast and supported by the Ghanaian government.

#### *Primary mathematics teacher training materials*

Exemplar teaching materials and video clips aimed at improving teacher subject knowledge and pedagogic skills in the teaching of mathematics that have developed as part of the implementing curriculum change project in 6 schools in South Africa. The materials are being used in initial and continuing professional development activities by mathematics educators at the Marang Centre, University of the Witwatersrand.

#### *Use of longitudinal data sets to evaluate the quality of education in Zanzibar*

One of the EdQual PhD students, who is also employed as a senior data analyst by the Ministry of Education in Zanzibar has piloted a new approach to collecting and analysing 'value added' measures of learner outcomes based on the collection and analysis of longitudinal pupil level data. The intention is to mainstream the approach within the Ministry of Education in order to provide a more accurate measure of the quality of education at the school and system level. The approach has the support of the Permanent Secretary for Education in Zanzibar.

### **Multiplier funding**

EdQual researchers have been successful in attracting multiplier funding. This has contributed to the scope, reach and future sustainability of programme outcomes.

1. £250k was awarded to members of the language and literacy team for a related project on language and assessment in Zanzibar.
2. £5k was awarded to members of the ICT team to develop a website devoted to disseminating good practice in ICT and education in Africa (Kalafrika).

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3. Multiplier funding in the area of capacity building has been won from the DfES funded (via British Council) England Africa Partnerships in higher education programme for £92k. This was used to strengthen PhD programmes within two EdQual partner institutions (Cape Coast and Dar es Salaam).
4. £20k was secured from the Allan and Nesta Foundation to assist in mainstreaming the outcomes of the ICT project in Rwanda.
5. £150k was secured from the Commonwealth to mainstream the outputs resulting from the leadership for change project in Ghana.

### **New and strengthened teaching programmes**

The action research process drew on teacher educators and in so doing profoundly developed their knowledge, skills and attitudes.

1. A core team of lecturers in science and mathematics education have developed values, attitudes, skills and strategies for using whatever ICTs are *already* available in Rwandan schools to make teaching and learning more interactive and for conducting training in these skills and strategies. KIE's is the leading institution for delivering primary and secondary level teacher pre-service education and inservice professional development. It also influences curricula and practices in teacher education colleges throughout the country.
2. Teacher educators at Marangu Teachers College and Morogoro Teachers College, Tanzania and lecturers at the University of Dodoma are able to lead training on use of language to enhance learning for learners in English medium secondary education, who are not fluent in English.
3. The Institute for Educational Planning and Administration, University of Cape Coast have a team of experienced teachers and researchers competent to design and deliver a programme of inservice leadership training for headteachers, which they are currently delivering to 250 headteachers.
4. The Institute for Educational Planning and Administration, University of Cape Coast has a new doctoral programme on qualitative educational research with xxx enrolled students. Members of the EdQual Ghana team are leading and implementing the programme. This programme will contribute growing research capacity to meet the knowledge needs of Ghanaian policy makers and practitioners.
5. The University of Dar es Salaam has introduced a taught unit for the first time within their Ph.D. programme and are designing an Ed.D. (Doctor of Education) programme. These programmes attract high level education administrators. Both programmes depend on former EdQual doctoral students.
6. Kigali Institute of Education is introducing a new masters programme in mathematics education and another in gender and education, components of both of which will be designed and delivered by staff, who are former EdQual doctoral students.
7. The University of Bristol has a new unit on 'Development Perspectives on Education' developed by an EdQual researcher. This unit attracts administrators, teachers and prospective development workers from a range of low to high income countries.

### **Beneficiaries**

The main beneficiaries of these outputs are learners in the 80+ schools involved in the African based projects who have had the quality of their education demonstrably improved through the introduction of new teaching and learning materials, improvements in teacher subject knowledge and pedagogical skills and in the leadership and management of their schools. The schools represent a range of difficult delivery contexts serving learners experiencing multiple forms of disadvantage. More disadvantaged learners will benefit as the initiatives are mainstreamed. A second main set of beneficiaries of the research are the teachers, headteachers, teacher trainers, district officers and supervisors and a ministry official who were directly involved in the action research projects. This includes teams of teacher educators within specific institutions such as Kigali Institute of Education, Morogoro Teachers' College and Institute for Educational Planning and Administration at the University of Cape Coast who are now delivering enhanced pre-service and inservice training, which will enable the next generation of teachers to deliver interactive lessons, to support second language learners and improve school quality. Other beneficiaries include the governments of the African countries covered in the programme, DfID and the international development community who have clear recommendations for implementing a good quality education. A third set of beneficiaries are the educators, many of who are already in leadership positions within education institutions, district and government offices, who participate in the new and strengthened research programmes. Many of these progress to leadership positions within education systems.

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Programme outputs summary

Outputs*	OVI*s*	Progress	Recommendations/ Comments
<b>1. Research</b>			
New understanding of education quality & indicators relevant to the needs of disadvantaged learners developed.	Joint research reports with explicit and feasible recommendations for policy and practice for each research project.	24 country and synthetic reports will be accessible through the EdQual website by August 2011	
New examples of effective practice in implementing education quality identified.	New initiatives with explicit and feasible guidelines to assist policy makers to mainstream as detailed in project proposals.	New initiatives developed in relation to each project with recommendations for mainstreaming. Initiatives relating to 4 of the projects (Ghana, Zanzibar, Rwanda, Tanzania) are in the process of being mainstreamed.	
New practical initiatives to improve the quality of education designed.			
New knowledge of effective practice in mainstreaming initiatives to improve the quality of education developed.	Quality publications relating to each of the four research objectives.	1 edited book; 22 articles in international peer reviewed journals including two journal special editions; 19 book chapters; 12 policy briefs; 6 newsletters; 24 published working papers.	
<b>2. Communication</b>			
New knowledge effectively communicated to key policy makers and influencers;	Key policy makers and influencers have shown active interest in applying new knowledge and initiatives from all four research outputs by the end of the RPC.	Links with policy makers and influencers maintained or deepened through involvement in project advisory groups, dissemination conferences and face-face meetings. Official approval from Ministries of Education enhances influence with practitioners.	
New knowledge effectively communicated to practitioners.			
New knowledge effectively communicated to research community	Practitioners in case study schools actively implementing new initiatives.	Teachers and headteachers who participated in research have implemented and monitored changes in their schools. Teacher trainers who facilitated them are developing & implementing new inservice programmes.	
	Joint conferences and research bids developed with other RPCs and/or research		

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	<p>teams.</p>	<p>Joint dissemination events involving 3 education RPCs held in Ghana and London. EdQual researchers have participated in a large number of international conferences including dedicated symposia at UKFIET conference on Education and Development, University of Oxford, September 2007, 2009 and 2011; CAL (Computer Assisted Learning) Conference, Manchester, April 2011; World Congress of Comparative Education Societies, Istanbul, June 2010; British Association of International and Comparative Education (BAICE). The Director has been invited to give 6 keynote presentations on EdQual-related work.</p> <p>Successful bids for multiplier research funding to Commonwealth Secretariat to mainstream leadership training (Ghana) and to Allan and Nesta Foundation to assist in mainstreaming ICT project (Rwanda).</p>	<p>Bid submitted to Nuffield Foundation (awaiting outcome) to mainstream language and literacy initiative Tanzania. Further bids planned in 2011 to Dfid/ ESRC; ESRC call on emerging powers; Spencer Foundation (inclusion).</p>
<p><b>3. Capacity strengthening</b> <i>(See annex 6.2 for details)</i></p> <p>Capacity of consortium institutions to generate and communicate new knowledge strengthened.</p> <p>Capacity of practitioners to implement quality improvement initiatives strengthened.</p>	<p>Increase in numbers of staff in African partner institutions with doctoral degrees;</p> <p>African partner names on publications in international peer</p>	<p>Strengthening of EdQual partner institutions through on-going PhD studentships. 10 PhDs directly funded by EdQual with a further 5 linked to EdQual (3 PhDs funded by Commonwealth Secretariat, 2 PhDs funded by World Bank). 3 have graduated so far with a further 6 expected to graduate in 2011 and the remainder projected to graduate in 2012. All students are currently employed by partner institutions.</p> <p>African partner names on 12 journal articles published in international peer reviewed journals and on 12 book chapters.</p>	

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	<p>reviewed journals;</p> <p>Successful completion of research projects led by African and UK institutions;</p> <p>Core base of administrators, researchers and teachers within African institutions with enhanced skills;</p> <p>Successful bids by African institutions for research projects outside of and after the RPC;</p> <p>Number of women in senior management positions in RPC activities and in member institutions;</p> <p>Number of new initiatives pioneered by practitioners as a result of participation in the research process and professional development activities.</p>	<p>Three of the four large scale African based projects have achieved their intended outcomes. The other one has achieved some of its intended outcomes</p> <p>Two out of the three African led small scale projects achieved their intended outcomes. One of the projects achieved some of its intended outcomes</p> <p>18 research training workshops linked to the African based projects were held between 05-10 targeted at researchers, teacher trainers, teachers, headteachers and district officials; 2 workshops were held to train administrators in RPC partner countries were held in 2005 and 2006; ongoing project management and admin training and support was provided to African project partners.</p> <p>Partners in Ghana, Rwanda and South Africa have each successfully bid for research projects outside of the RPC.</p> <p>4 women have served as institutional co-ordinators in the RPC. 8 of the 15 PhDs linked to EdQual are being undertaken by women. 4 women in African partner institutions have been promoted to senior positions.</p> <p>Five new initiatives linked to the five large scale projects have been piloted by African researchers involved in the research</p>	<p>The implementing curriculum change large scale project in South Africa did not achieve all of its intended outcomes due to project management issues (see programme management).</p> <p>The small scale project on inclusion was not able to complete due to the ill health and eventual death of the lead researcher in Tanzania.</p>
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## **Where are the research impacts?**

### *Progress towards achieving purpose*

Considerable progress has been made towards achieving the purpose of the programme. Policy makers in all of the partner countries are aware of EdQual research and initiatives and all of the African based projects have impacted on practice.

### *Impact on poverty*

The relationship between the quality of education and poverty reduction is complex and indirect. However, EdQual literature reviews highlight evidence written within a human capital perspective that improved levels of literacy and numeracy can contribute to economic growth and that increases in literacy rates can improve child health and mortality outcomes. There is evidence that the development of other cognitive and affective skills can also contribute to economic growth and, therefore, indirectly to poverty reduction. From a rights based perspective, the right to a good quality education is a basis for realising further rights including the right to a sustainable livelihood, gender and language based rights for example. Literature within the capability approach, in which the EdQual research locates itself, considers a good quality education as the basis for developing a range of capabilities and functionings that individuals, their communities and society at large have reason to value and as such a good quality education is an unqualified good for human development in itself. The four large scale action research projects have indirectly contributed to poverty reduction through demonstrably improving literacy and numeracy amongst disadvantaged learners in the 80+ schools involved in the programme but also a range of other capabilities including critical thinking, communication and problem solving skills. One project has directly contributed to poverty reduction through facilitating headteachers to identify and support vulnerable primary school pupils, including working children, teenage girls exposed to sexual risk, orphans heading households, undernourished children and children affected by chronic poverty. Through analysis of SACMEQ II data, EdQual has generated new knowledge on the relationship between poverty and acquisition of literacy and numeracy, that highlights the importance of allocating extra resources to schools serving the lowest socio-economic groups.

### *The effectiveness of the delivery of the communication strategy and how it supported the achievements of the programme purpose and outputs*

EdQual was launched with high profile **Consultative Workshops** in Tanzania, Rwanda, Ghana and South Africa, which were attended by senior officers from Ministries of Education related para-statal bodies with responsibilities in areas such as curriculum development, assessment and teacher education, district education officers, development partners and representatives from local NGOs and NGO networks. The contacts established through these events were then followed up through a series of one to one meetings with key policy influencers and makers; through EdQual participation in key events staged by government or professional bodies, and through invitations to subsequent smaller scale EdQual events. Distinct strategies for communication and impact were pursued in each country:

Distinct communication strategies were pursued in each African country. In **Ghana**, a simple message concerning the need for leadership training for primary school headteachers was communicated repeatedly through **English language national newspapers**. Relations were nurtured with **key individuals** in leadership positions, such as the Director of the Ghana Education Services through one to one meetings, invitations to joint RPC events (joint with the two other education RPCs, RECOUP and CREATE) and participation in the District Directors Conference. Involving action researchers in communication was particularly successful as policy makers responded in particular to their testimony of how the project has enabled them to innovate within their schools. This was successful in raising the profile of the issue with key policy makers and led to IEPA at Cape Coast being given a remit for training headteachers, which they were able to deliver using the materials, methods and capacity that EdQual developed.

In Rwanda, key policy influencers in government and independent bodies were regularly invited to workshops, which received coverage in English-language newspapers, and engaged through one to one meetings. The greatest influence was achieved through the actual research process which developed a core team of teacher educators who are currently developing and delivering inservice training in the use of ICTs to make science and mathematics education more interactive. KIE has control over all colleges delivering teacher training for secondary teachers in Rwanda, so the influence of this team extends beyond KIE itself. The networking activities started in the first year of the RPC are now opening the door for collaborations with One Laptop Per Child so that a planned inservice training programme can be delivered in sync with the distribution of laptops to primary school pupils.

In Tanzania and Zanzibar Ministry officials undertook research as members of project teams and this contributed to processes of buy-in and ownership of project objectives. These individuals were also able to facilitate participation of



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EdQual in events such as the Education Sector Review in Tanzania and enabled EdQual to conduct seminars within the Ministry of Education, Zanzibar. In the case of Zanzibar, it has led to an ongoing relationship between the Ministry of Education and the University of Bristol. Towards the end of the RPC, EdQual researchers have been able to draw on their network of contacts to share project findings on textbook design with the Tanzania Institute of Education, the main agency responsible for publishing and distributing textbooks for state schools in Tanzania.

In Rwanda and in Zanzibar one to one meetings were held with individual policy makers which also proved effective. Policy makers from the Ministries of Education and from related Ministries were also invited to dissemination events that were held in each African country. The situation in South Africa has been more uneven. Policy makers were invited to the consultative workshops and were engaged during the early days of the project. However, due to unforeseen problems at the outset of the project, it became necessary to work with new partners (see section six) and to change aspects of the project design. This disrupted communications with policy makers and as a consequence there has been more sporadic engagement and more limited policy impact to date. The South African team are actively engaging policy makers in the dissemination phase of their research to ensure longer term impact. They have also consistently engaged practitioners through subject-based professional associations, for example by presenting each year at the Southern African Association for Research on Mathematics, Science and Technology and Education and publishing in their journals. The two doctoral students sponsored by EdQual and also employed as researchers in the project were particularly effective in communicating with teachers mainly because their own classroom experience was recent.

A joint RPC event was held in Ghana and in London in which researchers from the other two education RPCs, CREATE and RECOUP also participated. This was useful for assisting policy makers and development partners including DfID to identify cross-cutting themes and issues. Maintaining a high profile through participation in conference and seminars with NGO involvement (such as the annual Global Monitoring Report Colloquium) has led to EdQual being approached by Plan, who consulted with EdQual in developing their Education Strategy 2010-2013 and Policy Brief on Education Quality (published 20 January 2011), and contribution to the consultation for DFID's Education Strategy. Having a symposium at the main international conference on Education and Development (UKFIET conference) over three biannual conferences and publishing in key academic journals has assured that our conceptual work and research findings have a high profile within the academic community. Representation at international conferences in North America led to an invitation to address a keynote presentation to George Soros' Open Society Institute and has assured international circulation of our findings. The website is accessed by users from across the globe including South Africa, Ghana, Tanzania and non-partner low to middle income countries, such as India, Vietnam and Papua New Guinea. Communications is still ongoing as the reputation established by the Director and key researchers over the lifetime of EdQual is still giving rise to dissemination opportunities.

***Evidence that policy makers and stakeholders have increased awareness of research findings and that has this led to changed attitudes and practice***

Policy maker awareness of research is evidenced by endorsements of EdQual initiatives in the African countries. This has made it easier to mobilise practitioners to get involved in the projects. EdQual researchers have also been invited to contribute to the development of national policy. The EdQual team in Ghana, for example, were invited to comment on the development of the ten year Education Sector Plan. Ongoing dialogue resulting from that process led directly to the EdQual partners in Ghana being asked to contribute to the development of a national headteacher training manual which has been sent to all headteachers. The Ghanaian Education Service is also supporting a national programme of headteacher training led by members of the EdQual team and funded by the Commonwealth Secretariat that draws on research evidence and initiatives developed during the EdQual programme. In Tanzania the EdQual team were invited to a meeting of development partners at the DfID offices and this led to an invitation to contribute to the education sector review process. The Tanzania Institute of Education (TIE) is leading a bid to the Nuffield Foundation for funding to develop EdQual materials relating to language and literacy for use in the national curriculum and text books. In Rwanda one to one meetings with Ministry officials led to the EdQual team in Rwanda being invited to support plans to roll out the one laptop per child initiative through providing evidence gathered during the Rwanda ICT project on the effective use of ICTs in the classroom.

***Impact on the wider environment and international levels***

EdQual research has contributed to poverty reduction through making clear recommendations to national governments and the international development community about how learning outcomes can be improved for disadvantaged learners in difficult delivery contexts. Recommendations are based on secondary analysis undertaken of the SACMEQ II data set which included data on **41,600** Grade 6 pupils in **2305** schools. This has provided robust evidence

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concerning the determinants of education quality across 14 countries in sub-Saharan Africa. EdQual has also made recommendations based on evidence gathered through intervention studies involving 80+ schools. They have all used forms of participatory research including action research that have directly engaged practitioners in the research process and in the development of new initiatives. This together with the findings from 15 PhD studies linked to the large scale projects and from the three smaller scale projects has provided important insight into the processes through which a good quality education can be implemented during the basic education cycle. Involving teacher training institutions as partners in the four African based large scale projects has also helped to ensure on-going, wider impact beyond the schools immediately involved in the project.

EdQual has been asked to contribute to international debates on education quality. For example, EdQual researchers have contributed background papers to the 2008 Education for all GMR report and to the 2011 UNESCO report on TVET. The Director of the EdQual RPC participated in the first regional summit on quality education for all held in Rwanda at the end of 2011, where ministers took up recommendations emerging from EdQual in their discussion exercises. A full list of international conferences in which EdQual researchers have participated is given in annex 6. These included symposia at the UKFIET conference on Education and Development (2007, 2009, 2011); the Computer Assisted Learning conference, Manchester (2011); the World Congress of Comparative Education Societies, Istanbul (2010); e-learning Africa, Nairobi (2007); and presentations to the Commonwealth Conference of Education Ministers (CEEM), Cape Town (2006) and Malaysia (2009).

### **Progress towards capacity development**

A key area in which EdQual has made considerable progress in achieving its purpose has been in developing sustainable research capacity to assist governments to implement education quality. The focus has been on developing the capacity of EdQual African partners to undertake research and development activities beyond the lifetime of the EdQual programme. EdQual has contributed to individual, institutional and environmental capacity in the following ways:

#### **Individual**

*Individual:* EdQual has invested in ten PhD studentships and attracted multiplier funding for a further six. Individuals, who have participated in research projects as university-based researchers, school-based action researchers or practitioners, have benefited from participation in focused workshops directed towards research and professional skills. The outputs from the doctoral research have fed directly into project outputs and recommendations. Altogether 18 research training workshops linked to the African based projects were held between 2005-10 targeted at researchers, teacher trainers, teachers, headteachers and district officials. Administrators have benefited from two training workshops (in 2005 and 2006) and those, who joined later have benefited from this through induction by the workshop participants.

*Institutional:* This has mainly been evident at the level of academic departments. So far, every single one of 9 EdQual-funded completed doctoral students are now working in their African-based home institutions and one funded by the Commonwealth. Another two, supported by multiplier funding and still completing, are at the same time working within the African university where they are registered. In total six, have undertaken their PhDs within African institutions making them available to teach or contribute to research on at least a part-time basis. Research training was delivered to institution-based teams of researchers leaving institutions with a strong research and teaching teams and these have already directly contributing the content and quality of teaching programmes. For example, KIE has a team of staff able to deliver training in the use of ICTs in the teaching and learning of mathematics, allowing this content to be incorporated into their pre-service programmes. Cape Coast has drawn on this capacity to implement headteacher training on a large scale. EdQual-funded completed PhD students are already taking on leadership positions within their institutions and at least three lead researchers/institutional coordinators (including the Director) have taken on key senior management positions within their academic departments.

*Environmental:* Capacity for uptake of education research findings has been developed in various ways and to varying degrees within different partner countries. EdQual funded a PhD student working in the Ministry of Education, Zanzibar creating capacity to implement a new system of value-added assessment of school quality. Tanzania included a researcher within their team from the Ministry of Education and he has facilitated communication of findings with Ministry of Education.

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Summary of progress in achieving purpose

Purpose	OVIs	Progress	Recommendations/Comments
<p><b>Purpose:</b></p> <p>Policy makers and practitioners have new knowledge, initiatives and a sustainable research capacity to assist them in improving the quality of education for disadvantaged learners.</p>	<p>Policy makers and practitioners are aware of new knowledge and initiatives from all four research outputs by the end of the RPC.</p> <p>Examples of related changes in policies, and practice in the areas covered by the research projects during the lifetime of the RPC and beyond.</p> <p>African partner institutions have increased research outputs in one or more areas of education quality by the end of the RPC.</p>	<p>Key policy makers attended dissemination events in all four African partner countries; EdQual initiatives have support within partner country Ministries of Education; EdQual researchers invited to contribute to education sector planning processes (Ghana, Tanzania); have contributed to the development and roll out of national initiatives (Ghana, Rwanda, Tanzania, Zanzibar); invited to contribute to development of DfID strategy; EdQual publications cited in policy and donor documents. Teacher trainers, teachers and district officials actively involved in education research, development of initiatives and dissemination activities. Practitioners in project schools and teacher training institutions have changed their practice.</p> <p>Government support for roll out of headteacher training in Ghana; continuation of ICT policy with EdQual input in Rwanda; Implementation of EdQual research and materials in participating schools and into teacher training programmes in partner countries.</p> <p>African partners have produced project reports, journal articles, book chapters, working papers and policy briefs, new initiatives and research proposals focusing on one or more areas of education quality. Partner institutions have increased capacity.</p>	<p>Involving practitioners including teacher training organisations has contributed to impact at the level of practice.</p> <p>Sustained engagement of policy makers and practitioners has contributed to impact.</p> <p>Tensions between research and capacity building objectives impact on the ability of the programme to realise its purpose.</p> <p>Forced changes to project design and to project teams limit engagement with policy makers and practitioners and hence impact.</p> <p>Turnover of key policy makers and Ministry personnel serves to limit engagement and impact.</p>

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## **Section Five; Lessons learnt**

### **5.1 Working with Partners**

The EdQual RPC has published several outputs relating to the lessons learned in the process of the RPC, for example:

A.M. Barrett, M.Crossley & H.A.Dachi (2011) International collaboration and research capacity building: learning from the EdQual experience, *Comparative Education* 47 (1): 67-77.

A.M. Barrett, M. Crossley & H. Dachi (2010) Research Capacity Building: Learning from the EdQual RPC. EdQual Policy Brief no. 8. November 2010. Bristol: EdQual.

Four of the five projects are African led. This is important for creating ownership by African partners and for linking research plans to locally determined priorities. The Mid Term Review team commented that ‘A great deal of effort has gone into constructing a programme which is not run purely from Bristol University! All of the four African partners are genuinely involved in all aspects of the research. Indeed, the research is very much their own agenda, so that we are not dealing with classical ‘extractive research’. Other partners – Bath University and IED of Aga Khan University, are operating in a consistent way with this philosophy. And the African partners are the ones who are making the links with planners and policy makers in their own countries, as a key part of the enterprise’. However, developing capacity amongst African partners to lead on the research activities has raised a number of issues that were not fully anticipated at the inception of the programme. The issues highlight an underlying tension in the RPC model between capacity building on the one hand and meeting research objectives on the other.

- Need for careful appraisal of the capacity of partners at inception. Some partners have proved much more capable of designing and running their own projects and achieving programme objectives than others. In Ghana for instance the institutional co-ordinator mobilised a strong team and institutional support for the projects. In South Africa the opposite was true. Lack of capacity and weak institutional management led to the need to redesign the project and identify new partners.
- The levels of support required from Northern partners exceeded that originally envisaged in programme plans. This has been evident in all stages of the research including developing proposals, undertaking field work, analysing and writing up data. Capacity building requirements had to be continually monitored and the RPC had to continually modify its capacity strengthening plans to take account of the challenges posed by the devolved model.
- Although providing PhD studentships will make a long term contribution to research capacity in the partner organisations having key researchers involved in both PhDs and field work creates tensions in terms of how researchers prioritise their time.
- The model also requires breaking with traditional mindsets. The stereotypical model of research in Africa has been for Northern partners to lead conceptually and for Southern partners to ‘implement’. In the EdQual RPC, Northern partners have had to balance being responsive to African priorities with being proactive in using their expertise to facilitate and progress plans. This has sometimes resulted in delays in meeting project objectives.
- A key issue in relation to a decentralised management structure relates to difficulties in communication (see below).
- An important lesson to emerge is the salience of human relationships and trust between partners and colleagues as a basis for ensuring effective outcomes. A key element is providing opportunity within the management structure and in the context of project work for frank and open discussion and dialogue on emerging issues and concerns within a mutually supportive environment.

### **5.2 Good Practice/Innovation**

We have added to the list of innovative practice in the last annual report:

- The introduction of a decentralised management structure has been significant for supporting and reinforcing Southern ownership of projects although it has implications for working with partners (above);
- Having a strong partnership agreement between participating institutions is important for clarifying expectations and roles and for specifying deliverables and milestones;
- The use of small scale projects to compliment large scale projects can add a degree of flexibility and responsiveness for meeting programme goals;
- Providing training and on-going support for administrators as a contribution to achieving programme goals but also longer term capacity for conducting research in partner countries;

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- Centralised support for some major administrative tasks such as international travel can assist in managing travel plans in a complex programme and in reducing costs;
- Regular meetings between education RPC Directors is important to ensure synergy and to identify overarching findings and issues at country and programme levels;
- Split site PhD programmes linked to LSPs which reduce the opportunity costs associated with study abroad;
- Knowledge of relevant languages by Northern based partners can serve to ease communication problems;
- Southern partners can play a decisive role in training to facilitate South-South as well as South-North learning;

### **5.3 Project/Programme Management**

The decentralised structure of EdQual requires Institutional Coordinators (ICs) and lead researchers to demonstrate significant leadership in relation to achieving programme outputs and purpose. It is preferable to fill these roles with experienced researchers. The reality in many African universities, however, is that this is not always possible. Low turnover in these roles is also desirable although once again this is not always possible. Indeed the reality has been a high turnover of ICs in partner universities. This has been caused by conflicting demands on senior staff including relatively high teaching loads. A consequence of working with partners who are relatively successful at attracting research funding is that they then have to balance competing demands on their time and capacity. In some instances ICs relinquished their role in order to pursue a PhD. High turnover of ICs and other senior researchers requires additional effort on the part of the outgoing and incoming individuals who are filling key roles and from the RPC Director if they are to undertake their roles effectively. The lesson learnt is the need to anticipate changes in key personnel and undertake careful succession planning.

Within a decentralised system, the wider institution has a particularly important role to play in providing symbolic and material support for projects. Ghana provided an excellent example of institutional support where the Head of Department is also a key researcher, where Masters students are included in RPC training activities and research and the University Vice Chancellor has been keen to promote RPC activities. In Rwanda, the IC role has been given ongoing support from the Vice Rector. Conversely, at Wits EPU, changes in the senior leadership of the unit along with the loss of senior members of the project team created an unsustainable environment for supporting research. Full details are provided in the 08/09 report. The result was that the project had to be transferred to another centre within the university in 2008 and it has taken some time for the project to get back on track.

A system of quarterly monitoring of projects was introduced in 2007 to coincide with the quarterly financial reporting schedule. This involved a brief proforma in which ICs were asked to specify progress to date with objectives for the last quarter and setting out objectives for the following quarter. The purpose of the system was to support existing monitoring arrangements and to strengthen accountability within the consortium for delivery of outputs. Rather than money being released to partners in six monthly tranches which had been the situation to date, money was released to partners in quarterly tranches and on condition that the RPC Director was satisfied with progress against objectives in the quarterly reports.

The experience of the EdQual RPC highlights other areas where lessons can be learned. One is the importance of robust systems for transferring money between partners. A particular challenge in Rwanda has been that three consecutive transfers of money went missing due to a banking error. The consequence was that field work in Rwanda was inevitably held up for approximately three months until the funds could be traced. The problem was finally resolved due to the hard work of the Bristol and Kigali admin teams.

Programme management has not been assisted by new procedures for vetting visas introduced by the home office. This has led to two visa applications by African-based researchers being declined, one involving the IC for Tanzania which prevented him attending the September 09 SMT meeting.

### **5.4 Communication**

We have added to the list of communication-related lessons from the last annual report:

*Internal communication*

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- Bringing partners from different African countries collaborating on the same comparative project together in a workshop environment ensures continuity in methodology and generates opportunities for South-South learning on substantive and methodological issues. They also develop trust and respect between colleagues in different partner institution which enables collaboration on research bids in the final year of EdQual and the period following the end of the RPC.
- Director's visits to partner institutions in Africa has been an irreplaceable means of monitoring the progress of research, maintaining momentum in the final years when the most skilled researchers and administrators are being invited to participate in other research networks or are promoted to more senior leadership roles within their institutions.
- Maintaining regular contact with practitioner action researchers is fundamental to nurturing innovation, collecting rich qualitative data and building researcher-academic networks that will facilitate practical communication of new initiatives with wider practitioner audiences.
- Telephone communication using Skype and other VOIP providers is the most reliable low cost method for UK-based researchers, including the Director, to keep uptodate and monitor progress on a month-to-month basis.
- Communication between African partners remains problematic.

#### *External communication*

- Less-experienced researchers need intensive support with writing research reports;
- Pairing of less-experienced researchers with more experienced researchers is an effective strategy for producing academic articles that are of interest to an international audience and chapters for books targeted at a broader international audience.
- Researchers need help in prioritising outputs. For example, in the last year of the programme partners were asked to focus on production of key research and communication outputs and not be diverted by documents that are mainly internal (e.g. workshop reports). The communications manager and Director can help with prioritization;
- Having lead researchers in each country who are motivated and effective at communication and, particularly, engagement with policy makers is key. These skills are to a large extent situated and only so much can be achieved through capacity building workshops on communications.
- Academics in senior positions who are well-known and respected within ministries of education and other bodies making and influencing education policy, play a key role in communication of research. There are three ways of securing the support of such people (i) they are already on the SMT of EdQual (Ghana); (ii) inviting them to events and keeping in contact with them through informal and formal collegial interactions; and (iii) inviting their participation on national advisory groups.
- National advisory groups are an effective way of communicating with senior officers, who participate in policy making and decision-making, and gives them an opportunity to share their expertise, in particular, knowledge of how to influence policy;
- Nurture research networks with partners that have proven to be 'value for money' during the lifetime of the RPC as part of EdQual's legacy;
- In Ghana, a major lesson learnt from communicating through media is that pro-government media broadcasts attract attention of government more than outputs channelled through media houses known not to be sympathetic to the government
- It was much easier to gain a high profile near the beginning of the RPC, when its inception was 'big news'. This was a key period for 'getting ourselves known' with policy makers and influencers. A change of government can in some countries, undermine this.
- Conversely, towards the end of the programme it can be harder to attract attention through 'big events', may be because audiences know we have little funding left and because there are other 'new shows in town'. What can work well at this stage is drawing on established contacts to get admission into ministries to participate in key events or run events within ministries of education.
- International impact is far more dependent on high profile, high quality, academically rigorous outputs and will take several years to evidence.
- There is a need now to communicate with the two other education RPCs, Young Lives and possibly some other RPCs to identify cross-sectoral messages for UK development ministers. DFID Communications have an important facilitative role and can advise on what kind of messages ministers and DFID are interested in.

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## Section Six; Programme Management

### 6.1 Identification of research themes

Identification and refinement of research themes was an iterative process influenced by on-going dialogue with DfID, the policy community, other RPCs, the wider research community and between EdQual projects. Research themes were developed through the following processes:

- Proposal development workshop brought together partners in Bristol and key research priorities in each partner country were identified and formed the basis of the tender application.
- Focused literature reviews during inception phase identified key priorities from national and international literature on quality.
- National consultative workshops during inception phase ascertained priorities from the point of view of policy makers, NGOs and donors.
- The programme design workshop during the inception phase drew on nationally determined priorities to shape overall programme
- The CAG has helped to shape priorities through making inputs to the programme design workshop and commenting on Large Scale Project proposals and through helping to select Small Scale Project proposals using programme objectives and priorities as a basis.
- DfID has helped to shape priorities through feedback to tender application and to Inception Phase report.
- The education RPC Directors have met in May 2006 to share research plans and priorities and to discuss possible joint dissemination events.

### 6.2 Partners' contribution to programme management.

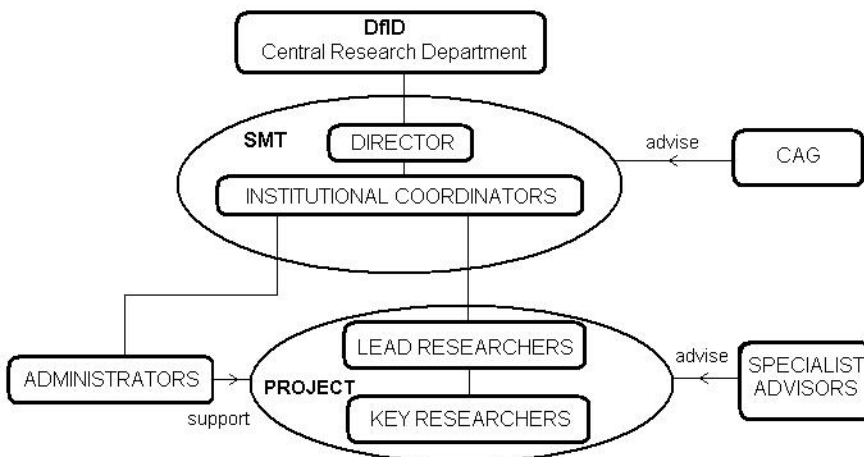


Diagram 2: Management structure of EdQual RPC

#### *RPC Institutional Coordinators*

RPC Institutional coordinators had overall responsibility for all in-country RPC related activities including those led by their institutions. They promoted the vision and goals of the RPC within their institutions and in country; liaised with key stakeholders and research partners involved in the RPC-based activities and represented their institutions on the Senior Management Team (SMT).

#### *Senior Management Team (SMT)*

The SMT consisted of the RPC director and RPC institutional coordinators. The SMT met at least once a year but was consulted on an on-going basis on major operational issues relating to the programme.

#### *Associate Partners*

The function of APs was to provide an international comparative dimension to research projects through contributing to literature reviews and conducting limited field work; to provide additional expertise to African led projects through contributing to project planning and capacity building. APs were not represented on the SMT. They were entitled, however, to submit proposals for SSPs in partnership with an African partner institution (although none did). The budget for APs is held centrally in Bristol and APs are directly accountable to the RPC Director. A contract defining

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the roles and responsibilities has been drawn up between Bristol and the APs. The day to day involvement of APs in projects is managed by lead researchers.

### **6.3 Changes to the programme**

Changes to the programme during the course of the RPC have been recorded in previous annual reports. There have not been any changes in the programme since the last annual report was submitted in 08/09.

### **6.4 Effectiveness of on-going monitoring arrangements**

#### *RPC Director*

The RPC Director has played a significant role in monitoring and providing feedback on project outputs including the LSP proposals. The Director has also played a key role in monitoring management arrangements in partner institutions and in identifying and intervening in project management issues affecting partner institutions where these have become apparent. The Director will continue to make regular visits to partner institutions for monitoring purposes and to provide advice, support and guidance to ICs and research teams.

#### *Role of CAG*

CAG had a very important role to play with respect to quality assurance within the RPC. CAG members made contributions during the inception phase to the programme design workshop concerning strategies to maximise the relevance and quality of research and initiatives developed and to encourage policy uptake and mainstreaming. All CAG members have acted as reviewers of LSP proposals. The CAG also made recommendations about funding for SSPs. The CAG has reviewed RPC outputs and has commented on external reviews of outputs undertaken by other specialist advisors (see below). Some CAG members have used their position and/or expertise to undertake specific monitoring functions for EdQual. For example, Dr Sheila Aikman, an expert on gender in education, agreed to work with the Bristol team to review the likely gender impact of the programme across projects and partners. The results of this monitoring have subsequently been published:

S. Aikman, A. Halai & J. Rubagiza (2011) Conceptualising gender equality in research on education quality, *Comparative Education* 47 (1): 45-60.

Dr Trevor Coombe who was on the Board of the Wits EPU at the time of the difficulties with the South African based project assisted the Director and offered advice and support in relation to the on-going management issues there.

#### *Specialist Advisors*

The RPC Director has relied quite heavily on the CAG to act as specialist advisors on research outputs although specialist advisors outside of CAG were increasingly drawn upon to review outputs and offer specialist advice to projects. They were invited to play a role in monitoring RPC activities and to advise on the quality of initiatives developed.

### **Multiplier funding**

As detailed in section four, EdQual researchers have been successful in attracting £425k in multiplier funding.



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## **Section Seven: Long-term sustainability of the Research**

New knowledge and many of the initiatives developed in the field of leadership and management, language and literacy, science and mathematics education and the use of ICTs will be sustained largely through their incorporation into on-going programmes of teacher training as detailed in section four. This has been possible because outputs from EdQual projects were specifically designed for use in teacher training and because key researchers from EdQual projects are involved in delivering teacher education programmes using the materials at partner institutions

- Research and materials produced by the language and literacy team in Tanzania including the teachers' handbooks have been incorporated into teacher education programmes at the Universities of Dar es Salaam and Dodoma and at Morogoro Teachers' Training College.
- Research and materials produced by the Ghanaian team on leadership and management including the headteacher training toolkit have been incorporated into the teaching programmes at Masters and Doctoral level of the Institute for Educational Planning and Administration, University of Cape Coast.
- Research and materials produced by the Marang centre in South Africa on science and mathematics education including the materials they have developed to support progression and sequence in numeracy and argumentation in science have been incorporated into masters and doctoral training programmes.
- Research and software produced by the Rwandan team including the TWiCkS toolkit have been incorporated into teacher training materials at the Kigali Institute of Education. The Rwandan team have been successful in attracting multiplier funding to develop their materials into on-line resources.

A key means for sustaining the research is through the on-going research and advocacy activities of African partner institutions. The African partner institutions have developed capacity through the programme including 12 PhDs and are showing evidence of becoming recognised centres of excellence in one or more areas of education quality (a programme objective). For example

- Ghana has been successful in attracting multiplier funding from the Commonwealth to roll out its programme of research into leadership and management on a national scale;
- The Rwandan team have been asked by the Ministry of education to act as advisors to the one laptop per child initiative.
- The Tanzanian team have been invited to advise on the development of new curricula and teaching materials by the Tanzanian Institute of Curriculum Development;
- The South African team will present their findings at a one day conference on basic education organised by the Ministry of Education in April 2012, Durban.

The research has culminated in some high quality publications including an edited volume in a prestigious series on education and development and two journal special editions. Early indications suggest a sustained high impact for the journal special editions. One year after publication, articles from the special editions featuring EdQual research are amongst the 20 most downloaded for the journal and several have already been widely cited.

The EdQual website will be kept alive for two years after the end of the programme. Key research outputs will be available to download from the website.

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## Appendices

### Appendix 1. Logical Framework.

Narrative Summary (NS)	Verifiable Indicators (OVI)	Means of Verification (MOV)	Assumptions/Risks
<p><b>Goal: (DFID)</b></p> <p>Contribution to poverty reduction amongst disadvantaged groups and the achievement of the education and gender equity MDGs.</p>	<p><i>(No need to complete)</i></p>	<p><i>(No need to complete)</i></p>	<p><i>(No need to complete)</i></p>
<p><b>Purpose:</b></p> <p>Policy makers and practitioners have new knowledge, initiatives and a sustainable research capacity to assist them in improving the quality of education for disadvantaged learners.</p>	<p>Policy makers and practitioners are aware of new knowledge and initiatives from all four research outputs by the end of the RPC.</p> <p>Examples of related changes in policies, and practice in the areas covered by the research projects during the lifetime of the RPC and beyond.</p> <p>African partner institutions have increased research outputs in one or more areas of education quality by the end of the RPC.</p>	<p>Record of meetings with policy makers; interviews with policy makers; citations of EdQual publications in policy and donor documents; opinions of experts.</p> <p>RPC annual reports; revised policy documents; opinions of experts.</p> <p>RPC annual reports and publication lists; research grant awards;</p>	<p>International policy-influencing bodies remain galvanized behind the education and gender equity MDGs.</p> <p>Parallel developments in other sectors (e.g. business, agriculture, health) that enable education to contribute towards poverty reduction for disadvantaged.</p>
<p>Outputs</p>			

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<p><b>1. Research</b></p> <p>New understanding of education quality &amp; indicators relevant to the needs of disadvantaged learners developed.</p> <p>New examples of effective practice in implementing education quality identified.</p> <p>New practical initiatives to improve the quality of education designed.</p> <p>New knowledge of effective practice in mainstreaming initiatives to improve the quality of education developed.</p>	<p>Joint research reports with explicit and feasible recommendations for policy and practice for each research project.</p> <p>New initiatives with explicit and feasible guidelines to assist policy makers to mainstream as detailed in project proposals.</p> <p>Quality publications relating to each of the four research objectives.</p>	<p>Project and annual reports of the RPC; evaluations of the RPC; publications lists; citations.</p>	<p>New knowledge perceived as relevant and of quality.</p> <p>Targeted audiences maintain power to change policy beyond 2010; More powerful policy-influencing bodies do not over-ride the recommendations of EdQual.</p> <p>Institutional or national level disruptions beyond control of EdQual do not constrain capacity and influence of member institutions.</p>
<p><b>2. Communication</b></p> <p>New knowledge effectively communicated to key policy makers and influencers;</p> <p>New knowledge effectively communicated to practitioners.</p> <p>New knowledge effectively communicated to research community</p>	<p>Key policy makers and influencers have shown active interest in applying new knowledge and initiatives from all four research outputs by the end of the RPC.</p> <p>Practitioners in case study schools actively implementing new initiatives.</p> <p>Joint conferences and research bids developed with other RPCs and/or research teams.</p>	<p>Project and annual reports of the RPC; communication strategy; publication lists; RPC website; reports of external evaluations of RPC; conference proceedings; on-gong invitations to speak; e-mail communication with policy makers &amp; practitioners; record of face-to-meetings; policy makers and influencers consult with EdQual researchers.</p>	<p>Substantial proportion of practitioners targeted by initiatives arising from research are motivated to implement change and improve practice and not prevented by other changes to their work &amp; working conditions.</p> <p>No major disruptions to political and economic environments of institutions and nations involved in research.</p>

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<p><b>3. Capacity strengthening</b></p> <p>Capacity of consortium institutions to generate and communicate new knowledge strengthened.</p> <p>Capacity of practitioners to implement quality improvement initiatives strengthened.</p>	<p>Increase in numbers of staff in African partner institutions with doctoral degrees; African partner names on publications in international peer reviewed journals; successful completion of research projects led by African and UK institutions; core base of administrators, researchers and teachers within African institutions with enhanced skills; successful bids by African institutions for research projects outside of and after the RPC; number of women in senior management positions in RPC activities and in member institutions;</p> <p>Number of new initiatives pioneered by practitioners as a result of participation in the research process and professional development activities.</p>	<p>RPC annual reports and publication lists; research grant awards; external evaluations of the RPC; course evaluations; interviews with participants.</p>	
<p>Activities:</p>	<p>Inputs</p>		

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<p><b>1. New Knowledge Generated</b></p> <p>5 large scale projects (LSPs) carried out over the lifetime of the RPC in the areas of: school effectiveness; implementing curriculum change; ICT to support basic education; language and literacy development; leadership &amp; management of change, to include:</p> <ul style="list-style-type: none"> <li>○ Literature reviews &amp; synthesis of existing initiatives &amp; identification of samples by Dec 06.</li> <li>○ Collection &amp; analysis of baseline data by Mar 07 for LSPs 2-5.</li> <li>○ Secondary analyses of SACMEQ data Apr 06-June08 for LSP 1;</li> <li>○ Research in sample institutions for LSPs 2-5, Jan 07- Dec 08;</li> <li>○ School case studies exploring issues raised by SACMEQ data analysis for LSP1, Jul 08-Aug 09 for LSP 1.</li> <li>○ Pilot, refine &amp; disseminate practical initiatives Aug 08- June 10 including trials in other contexts, e.g. Pakistan.</li> <li>○ Disseminate findings &amp; outputs of LSP1 Aug 09-Aug10.</li> </ul> <p>Small Scale Projects (SSPs) carried out between Jan 07-Jan 09 in the areas of:</p> <ul style="list-style-type: none"> <li>○ Inclusion Index, NEPAD e-schools, School building design.</li> </ul>		<p>Capacity in partner institutions is in place or can be developed in time for programme or research to be of high quality and delivered on time.</p> <p>Flexibility to accommodate disruption due to external events.</p> <p>Relevant quality proposals for SSPs are submitted.</p>
<p><b>2. Communication</b></p> <p>Prepare communication action plans; develop CS over RPC lifetime.</p> <p>Publish in peer-reviewed academic journals, edited books &amp; policy briefings. Publish newsletter targeted at Africa-based target audiences, especially practitioners.</p> <p>Website targeted at all segments of international audience: launch Oct 06. Ongoing maintenance.</p> <p>Participate in key international fora attended by academics &amp; donor community e.g. Oxford UKFIET conference, CCEM, ADEA. Meetings with policy makers; participate in key national fora attended by policy makers, policy influencers &amp; practitioners</p> <p>Strategic press releases &amp; communications through NGOs specialising in popular media, e.g. Mediae Kenya, to influence policy makers &amp; raise public awareness of quality issues.</p>		<p>Website, newsletter and dissemination through popular media (i) reach target audiences &amp; (ii) are attractive &amp; useful to target audiences (See Risk Analyses of CS).</p> <p>Funding (from EdQual &amp; parallel funding) available for researchers to attend key international fora.</p> <p>Potential users are willing and have the capacity to engage in ongoing communication with EdQual and take up findings/materials generated.</p>

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<p><b>3. Capacity strengthening</b></p> <p>Intensive research training for lead &amp; key researchers; 10 PhD studentships linked to LSPs; Development of research proposals for additional funding led by partner institutions; Training for administrators; Pairing more &amp; less experienced researchers in research, writing &amp; PhD supervision; Administrators' training workshop.</p> <p>National consultative workshops to identify capacity strengthening needs in governments &amp; NGOs; National dissemination workshops for policymakers &amp; NGOs;</p> <p>Practitioner training in research methods; 1 LSP on leadership &amp; management of change.</p>		<p>Risks – Research capacity threatened by institutional level instability in staffing &amp; funding; academics overloaded with teaching; PhD graduates attracted to work elsewhere.</p> <p>Assumptions – Key policy makers attend &amp; engage with workshops; IIEP training contributes towards assuring govt policy maker engagement.</p> <p>Assumptions – Sufficient continuity in practitioner postings in institutions targeted by training to ensure implementation and continuation of changes; Practitioners involved in research sustain implementation beyond lifetime of RPC, e.g. are motivated &amp; not prevented by other changes to their working conditions.</p>
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**Appendix 2. Financial summary for the completed programme (not available in public version).**

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### Appendix 3. Risk assessment matrix

Prob Impact	L	M	H
<b>H</b>	Transport infrastructure; initiatives are not implementable when mainstreamed; Research outputs perceived as culturally inappropriate; Institutional support for EdQual not sustained.	New initiatives are not mainstreamed	
<b>M</b>	Theft or financial mismanagement	Lack of short term tangible visible benefits; Access difficult delivery contexts but not disadvantaged learners within schools; Policy makers and practitioners do not trust EdQual outputs; Target organisations do not have capacity to learn & change; Teacher strikes disrupt data collection.	
<b>L</b>	Competition for access to stakeholders; Focus of researcher's interest changes; Political risk; work perceived as political; Inflation and the favourable rate of exchange; Project plans and activities are inconsistent; Personality clashes; Research activities resisted locally; Outsider researchers' rapport with informants impeded	Poor or no connectivity; Project schedule; staff turnover /limited capacity; Multiple demands on researchers/staff; Predictable events; loss of commitment by participants.	Unpredictable events, e.g. unpredictable disruptions to school calendar; Personal events, e.g. pregnancy, illness, bereavement.

#### Programme Risk classification

<b>HIGH RISK</b>	>2 risks in darkest squares
<b>MEDIUM RISK</b>	≤1 risk in darkest squares ≥1 risk in light grey squares
<b>LOW RISK</b>	All risks concentrated in white squares

According to the risk classification scheme provided by DFID in the document 'Managing Risk for DFID Research Programme Consortia (RPC)', the EdQual RPC is medium risk.

More than half the risks identified by LSPs are scored as low impact. This is because although they may have a medium to low impact on a particular LSP or partner institution, the impact across the RPC as a whole is much less.



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#### **Appendix 4. The Communication strategy**

# EdQual RPC Communications Strategy

## Implementing Education Quality in Low Income Countries



# EdQual

A Research Programme Consortium on  
Implementing Education Quality in Low Income Countries

Prepared by EdQual, Bristol  
Date: 10 February 2012

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## Background & recent revisions

The Communication Strategy (CS) is a living document that is constantly being updated to reflect the RPC's growing knowledge and experience in the field of communications. By EdQual's completion date in 2010 it should be a record of our accumulated knowledge on how to communicate research persuasively, so as to influence policy and practice, in the field of Education Quality in Low Income Countries within our member countries.

The development of the CS throughout RPC lifetime will depend on contribution by EdQual members, who make use of this document. Feedback should be sent to the EdQual Communications Manager (CM), Angeline Barrett ([Angeline.Barrett@bris.ac.uk](mailto:Angeline.Barrett@bris.ac.uk)) or discuss with your national communications strategists and institutional coordinators.

## Recent revisions

Chapter 12, key dissemination strategies 2010-11 has been added.

## Acknowledgements

The authors of the CS prepared for the Inception Phase Report in April 2006 were Angeline Barrett and Keith Holmes, in discussion with Leon Tikly. DFID guidance notes on research communication (<http://www.dfid.gov.uk/research/guidance.asp>) were taken as a starting point for the preparation of the first draft of the CS. Since then, it has been modified in response to feedback from DFID, communications workshops held with LSP teams in June-July 2006 and EdQual's experience with communications as captured in workshop reports and quarterly reports.

## Abbreviations

ADEA	Association for the Development of Education in Africa
AMESA	Association of Mathematics Educators of South Africa
BAICE	British Association for International and Comparative Education
BBC	British Broadcasting Corporation
CA	Communications Administrator
CAG	Consortium Advisory Group
CAP	Communications Action Plan
CCEM	Conference of Commonwealth Education Ministers
CIMRC	Communication & Information Management Resource Centre
CM	Communications Manager
CM1	Communications Manager
CM2	Communications Supporting Manager
Com	Communications
CREATE	Consortium for Research on Educational Access, Transitions and Equity (Access RPC)
CS	Communications Strategy
DfID	Department for International Development
DfID CRD	DfID Central Research Department
Dir	Director
EDUCAIDS	Global Initiative on Education for HIV/AIDs prevention
EdQual	Research Programme Consortium on Implementing Education Quality in Low Income Countries
EFA	Education For All
EPU	Education Policy Unit, University of Witwatersrand, Johannesburg
FAWE	Forum for African Women Educationalists
Gh	Ghana
GSoE	Graduate School of Education, University of Bristol
IC	Institutional Coordinator
ICC	Implementing Curriculum Change LSP
ICMI	International Commission of Mathematical Instructors
ICSEI	International Congress for School Effectiveness and Improvement
ICT	Information Communication Technologies or Use of ICTs LSP
ICTs	Use of ICTs to support basic education LSP
IEPA	Institute for Educational Planning and Administration
IIEP	International Institute for Educational Planning
ILRT	Institute for Learning and Research Technology
INEE	Interagency Network for Education in Emergencies
INGO	International non-governmental organisation
KIE	Kigali Institute of Education
KR	Key Researcher
L&L	Language & Literacy LSP
L&M	Leadership & Management of change LSP

LR	Lead Researcher
LSP	Large Scale Project
M/DoE	Ministry or Department of Education
MOV	Means of Verification
Natnl	National
NCSt	National Communication Strategist
NGO	Non-governmental organisation
NRG	National Reference Group
ODI	Overseas Development Institute
OVI	Objective Verifiable Indicators
PC	Personal Computer
PDA	Personal Digital Assistant
RAPID	Research and Policy in Development
RECOUP	Research Consortium on Educational Outcomes and Poverty (Outcomes RPC)
RPC	Research Programme Consortium
Rw	Rwanda
SA	South Africa
SAARMSTE	Southern African Association for Research in Mathematics and Technology Education
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SADC	Southern Africa Development Community
SeeQ	School Effectiveness and Education Quality LSP
SIDA	Swedish International Development Cooperation Agency
SMT	Senior Management Team
SSP	Small scale project
THES	Times Higher Education Supplement
Tz	Tanzania
UDSM	University of Dar es Salaam
UKFIET	UK Forum for international education and training
UN	United Nations
UNESCO	United Nations educational, scientific and cultural organisation
UNICEF	United Nations Children' fund
USAID	United States Agency for International Development
VoIP	Voice over Internet Provider
Yr	Year
Znz	Zanzibar

## 1. Purpose, Aims and objectives of EdQual RPC

### **Purpose**

The overall purpose of the RPC is to provide policy makers and practitioners with new knowledge, initiatives and a sustainable research capacity to assist them in improving the quality of education for disadvantaged learners.

Special attention will be given to remote, overcrowded and otherwise difficult delivery contexts and meeting the educational needs of the most disadvantaged groups. The consortium will create a sustainable resource through supporting African partner institutions to become regional centres of excellence in one or more areas of education quality and through strengthening capacity at government level and within organisations to successfully implement change.

### **Objectives**

In support of achieving its purpose, EdQual has the following three sets of objectives:

#### *Research Objectives*

- To develop an understanding of education quality and to develop education quality indicators that are relevant to the needs of low income countries and especially to those of disadvantaged learners in difficult delivery contexts;
- To identify examples of effective practice in implementing education quality through an evaluation of existing initiatives in the areas of curriculum change, teaching and learning and assessment, ICTs in education, languages and literacy and leadership and management;
- To develop, pilot and evaluate new, practical initiatives in the area of education quality and to evaluate their impact on different groups of learners;
- To determine effective practice in mainstreaming education quality policies and initiatives.

#### *Communications Objectives*

EdQual's communications objectives are:

- (i) To effectively communicate new knowledge to key policy makers and influencers;
- (ii) To effectively communicate new knowledge to practitioners;
- (iii) To effectively communicate new knowledge to the research community.

#### *Capacity Strengthening Objectives*

EdQual's capacity strengthening objectives are:

- (i) To strengthen the capacity of consortium institutions to generate and communicate new knowledge;
- (ii) To strengthen the capacity of practitioners to implement quality

improvement initiatives.

Further information on EdQual can be found in the brochure and on the website ([www.edqual.org](http://www.edqual.org)).



## 2. Aims and Objectives of the Communications Strategy

This Communications Strategy (CS) is intended as a management tool to facilitate achievement of EdQual's communication. It explains what EdQual aims to achieve through research communication and how. It also serves as a communications handbook for EdQual researchers giving guidance on how to communicate with audiences, who have the power to change policy and practice.

The aims of the Communication Strategy (CS) are to ensure that:

1. programme research is responsive to changing user needs;
2. new research knowledge is communicated to target audiences in a way that will assist in the implementation of new initiatives to reduce poverty and to achieve gender equity;
3. effective communications channels are developed and sustained within the RPC itself in order for it to achieve its overall purpose.

The CS has the following objectives:

- To establish a culture of information sharing within the RPC.
- To set up systems for ensuring effective communication of research during and beyond lifetime of RPC.
- To identify appropriate target audiences for the RPC and to define specific communications objectives for each of these groups;
- To identify key features of the communications environment including opportunities for and threats to communication with key target audiences in partner countries and within the international development community;
- To identify individuals and groups who are best placed to communicate with key target audiences;
- To identify effective communication channels for reaching specific target audiences;
- To develop a communications action plan based on the above objectives and to put in place effective monitoring and reviewing arrangements.

### 3. What to communicate?

#### **Setting the research agenda**

Locating demand for research, identifying and being responsive to knowledge needs are the first challenges of research.

The substantive issues to be researched by EdQual have been determined carefully on the basis of the following:

- (i) knowledge needs of DfID (as outlined in the invitation for expressions of interest);
- (ii) the judgement of experts within EdQual;
- (iii) Preliminary literature reviews;
- (iv) the knowledge needs of policy makers in African member countries identified through the consultation workshops.

Four of EdQual's five LSPs are led by each of the four African partner institutions, who have designed the research starting from writing proposals. The research agenda engages with what local experts recognise as the most urgent knowledge needs and dominant educational discourses in their countries. This improves the chances of uptake and use<sup>9</sup> in country. In addition, research will be responsive to evolving knowledge needs as in country researchers are know about changes in policy and practice.

Each LSP conducts research in two African countries and, in some cases, also an associate partner country outside of Africa. Researchers from each participating country have contributed towards the literature reviews and hence, the process of identifying substantive issues. The collaborators focus on the research questions that are relevant to their context and adapt research tools to their own contexts.

#### **Year 1: Main Messages**

In Year 1, communication was mainly been concerned with the following:

1. Informing target audiences about EdQual and its main areas of research;
2. Consulting with policy makers and key advocates in African partner countries so that their knowledge needs can inform research design.

#### **Year 2: Main Messages**

In Year 2, communication activities have focussed on:

1. Reaching out to practitioners, including practitioner researchers with some of the LSPs, national professional networks and international associations, the year the main messages to communicate will be the following.

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<sup>9</sup> DFID Research Strategy 2008-2013: Visioning and Strategy Workshop, 7-8 March 2007, <http://www.dfid.gov.uk/consultations/crd/research-strategy.asp>, accessed 20 August 2007.

2. Dissemination of the literature reviews and research proposals, mainly through the website.
3. Creating a community of interest in EdQual through the newsletter.
4. Identifying and forming relationships with key international NGOs who can facilitate research communication at later stages.
5. Communicating research programmes with whom EdQual can share resources and findings, e.g. TESSA, through seminars and conferences.

### **Year 3: Main Messages**

- In Year 3, we have started to have emerging findings to communicate with policy makers and through the media.
- All large scale projects (LSPs) are in the main data collection phase and so communication with action researchers and their supervisors has been a priority.
- There has been an increased emphasis on producing outputs aimed at research audience, most especially working papers.

### **Year 4: Main messages**

#### **Cross-RPC**

- Initiatives to improve education quality need to be contextualised;
- Nutrition impacts on performance as well as attendance. Local initiatives need to be developed that are responsive to issues such as seasonal hunger (amongst farming communities), facilities for storing, cooking and dining in schools and target children from families and communities experience most severe poverty.

#### **School Leadership**

- Head teachers benefit from leadership training;
- Leadership of teaching and learning is a key part of head teachers' role and they are able to improve the quality of teaching and learning in their schools;
- Headteachers can be taught skills for analysing attendance and performance data as a basis for decision-making and sharing information with staff and governors;
- Placing computers in schools does not in itself improve the quality of education, teachers need support to use the available technologies to improve learning in their classrooms;
- Bilingual classroom strategies, especially at the point of transition language of instruction, improve learning in the new language;
- Sophisticated statistical techniques, such as multilevel modelling, can provide nuanced findings to inform policy-making.
- Teaching in

#### 4. Target Audiences

This section maps target audiences for the RPC as a whole<sup>10</sup>.

The purpose of EdQual is to change policy *and* practice. Hence we aim to communicate persuasively with three broad categories of target audience: those who influence policy; those who make policy and the practitioners who implement policy. New knowledge that can change policy and practice can only be generated through quality research and quality research is dependent on good communications between researchers, their advisers, evaluators and funders. Hence EdQual researchers and administrators, DfID and other RPCs may be regarded as an important fourth category of target audience. How communication with the four audiences contributes towards the EdQual purpose of changing policy and practice is represented in figure 1.

Table 1 provided a framework for identifying target audiences. Which has assisted country teams to identify target audiences. Tables 2 names the specific target audiences that have been identified in country. In many cases we are already engaging with these audiences.

Objectives, Messages and communication channels for target audiences are identified in Communication Action Plans in Section 13.

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<sup>10</sup> The analysis in this section is based on the (i) the current knowledge and assumptions of the central communications team and (ii) insights gained through consultative workshops with policy makers and influencers in each African partner country in November 2005. The authors also drew on information on policy making process from Kuder (2004)<sup>10</sup>.