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Language, Literacy, and Learning in Primary Schools

Implications for Teacher Development Programs in Nigeria

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THE WORLD BANK

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Foreword

This report, *Language, Literacy and Learning in Primary Schools: Implications for Teacher Development Programs in Nigeria*, synthesizes the main findings of various studies on the quality of teaching and learning in Nigerian primary schools that were sponsored over the past few years by the World Bank and Nigeria's development partners. It was carried out in the context of the World Bank-financed Second Primary Education Project and was part of the education sector analysis work program which focused on teacher and student interactions in the classroom, stakeholders perceptions of the classroom performance of recent graduates from teacher education training programs, tracer studies of these graduates and national assessment of learning achievement. The Federal Government of Nigeria and the World Bank also carried out a three year research program to evaluate options for increasing students' proficiency in language, literacy and learning through a school-based teacher support mechanism.

The present report paid particular attention to the government's current policies on the initial preparation of primary school teachers; their upgrading and continued professional development; the use of a modular and flexible approach leading to formal certification in teaching; and the combination of course work, practical experience, distance learning and teacher mentoring. Also examined are issues pertaining to primary teacher quality, the curriculum of teacher education and the structure and organization of teacher education programs.

The report makes four major recommendations for consideration by Nigerian policy makers regarding the preparation of teachers for responsive engagement with children with diverse learning needs:

- Review the current teacher education curriculum specifically through the lens of what primary school teachers should know and be able to do if they are to be effective teachers and if students are to learn well.
- Continue to develop school based teacher mentoring and professional support programs, and build these experiences into career development programs and incentive systems.
- Develop programs of staff development for colleges of education that address the requirements for training primary school teachers and linking their college work to practice in primary schools
- Examine the cost and financing of initial teacher education program and upgrading programs for primary school teachers and evaluate the options based on their costs and benefits.

As with all World Bank Working Papers published in the Africa Human Development Series, the purpose is to share information and provide a basis for informed debate and discussion. It is my sincere hope that this report would make a small but tangible contributions to Nigeria's efforts to shape an effective and efficient response to the challenges of teaching and learning in primary schools. I also hope that its publication in this easily

accessible format would add to the storehouse of knowledge that benefits the community of policy analysis and researchers at large, both in Nigeria and elsewhere.

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Acknowledgments

Acronyms and Abbreviations

COE	College of Education
DfID	Department for International Development
EDB	Education Data Bank
EFA	Education For All
ETF	Education Trust Fund
FCT	Federal Capital Territory
FGN	Federal Government of Nigeria
FME/FMOE	Federal Ministry of Education
IETF	Irish Education Trust Funds
IOE	Institute of Education
IRA	International Reading Association
JICA	Japan International Corporation Agency
LEAP	Literacy Enhancement Assistance Programme
LGEA	Local Government Education Authority
MDGs	Millennium Development Goals
MLA	Monitoring Learning Achievement
MUSTER	Multi-Site Teacher Education Research Project
NCCE	National Commission for Colleges of Education
NCE	Nigeria Certification of Education
NETF	Norwegian Education Trust Funds
NPEC	National Primary Education Commission
NTI	National Teachers Institute
OA	Obafemi Awolowo
OECD	Organization of Economic Cooperation and Development
PES	Primary Education Studies
PTTP	Pivotal Teacher Training Program
RAN	Reading Association of Nigeria
UBE	Universal Basic Education
UBEC	Universal Basic Education Commission
UNESCO	United Nations Education and Scientific
UNICEF	United Nations Children's Education Funds
USAID	United States Agency for International Development

Executive Summary

Primary schools in Nigeria suffered years of neglect throughout the long period of military governments, from which they are still trying to recover. The democratic dispensation in 1999 and the implementation of universal basic education policies have renewed energies at the federal and state levels to improve schools. State and federal governments have carried out a number of infrastructure improvement projects and a body of research into teaching and learning that has been carried out over the past five years is building a better picture of how to improve schools.

Student learning as measured by national assessments has not increased since 1996. It is very low by both national and international standards. The major contributing factors to low learning achievements are the poor conditions of classrooms (lack of safe and healthy buildings, inadequate distribution of essential textbooks and instructional aids, and poor quality of teacher education, and limited opportunities for teachers to develop their skills). Studies of teaching and learning have identified areas in which improvements have been made, and which can be developed further into wider systems of school-based teacher professional development if these are accompanied by greater supplies of suitable textbooks and guides—the teachers "tools of the trade." A major area of neglect in teacher education and in teacher support has been the importance of Nigerian languages in developing literacy and learning skills in young children, and appropriate methods and materials for introducing and developing communication skills in English as a second language and a medium of instruction in upper primary grades.

The current policies on initial preparation of primary school teachers and their upgrading and continued professional development need to be seriously reconsidered. Modularized approaches leading to certification need to be put in place, emphasizing relationships between knowledge about children and practice in the different classroom contexts in which teaching and learning takes place. Teacher policies need to put in place a system of in-out-in and combinations of course work, school experience, distance learning and teacher mentoring so that teachers are better prepared to be responsive to children's learning needs and the variety of contexts in which learning takes place. Otherwise quantitative and qualitative goals for Nigeria's Universal Basic Education (UBE) program and Education for All (EFA) will not be met.

Policy Issues

Primary school teacher quality and how best to get it. Primary school teacher quality needs to be defined by performance standards and benchmarks in professional development based on what they know and can do in classrooms. Teacher quality should also be measured by the match of teachers to the requirements of the school communities in which they work. For example, language competence and appreciation of the social and cultural milieu of the children they teach. This requires more flexible entry requirements but also more emphasis on building teacher quality through school-based mentoring and professional support programs rather than fixed long term study in a college of education.

Curriculum of teacher education and the structure and organization of teacher accreditation programs linked to performance benchmarks (for accreditation) and performance standards (quality assurance). The NCE curriculum is reviewed in five-year cycles. The review process is beginning now. This provides an opportunity for much wider review than has been the practice in the past. It should be possible to begin with first principles, what do we know about learning in primary schools and what do primary school teachers need to know and be able to do to meet the demands of teaching and learning. This could lead to building a framework of benchmarks as a basis for developing a modular approach to initial teacher preparation and certification. The review of the NCE curriculum for primary teacher education should also review the curriculum content and practical components of the PTTP and the Grade II certificate programs so that teachers who already have some training can gain credits for both training and experience of teaching. All primary school teachers should be trained as grade teachers, able to teach the core subjects across the curriculum, but there will also need to build some specialization into primary teacher education. For example, primary teachers who teach in lower primary school classes need to develop skills in teaching initial literacy and numeracy through the Nigerian language. Further, all teacher need to understand how English is taught as a second language, but some teachers may choose to specialize in upper primary grade teaching where English is the medium of instruction. Teachers in small schools will want to increase their knowledge and understanding about managing learning in multigrade teaching situations and about building close school and community relationships.

Cost and financing of teacher education and development. Very little research has been done into the cost and financing of primary teacher education and training. This is an area that needs greater attention. The costs and benefits of different strategies should be examined for training, upgrading, and continuing development of primary school teachers. The research should provide an empirical basis for options and choices for state and local governments. Currently, the cost of full-time study for the NCE and even the part-time NCE upgrading programs discriminate against teachers in poor communities.

Incentive structures, professional development and career paths in primary education. The role of the teacher unions, the employer (LGEAs/States), and the civil service need further examining. In the long term, there will need to be discussion about creating a separate teaching service that has conditions that relate specifically to teacher careers and incentive structures that reward teaching performance and professional development. A teacher management structure needs to be located in the federal structure with more responsibility for teacher careers defined at the state level and accountability for teacher performance held at local government and school levels.

Issues of meeting the competing demands for teacher quality and teacher supply. Many states, especially but not exclusively, northern states with low education indicators are trying to expand the school system at the same time as improve the quality and outcomes of their primary schools. In these settings, the output from the secondary school system is low and the demand for secondary school graduates is high. The choices secondary school graduates make are not limited to careers in primary schools: given the poor teaching conditions of primary school, teaching is often low on a student's list of career choices. Meeting the demand for new teachers, and the demand to improve the performance quality of teachers already in schools requires new thinking about who teaches and how they are trained for the job in primary schools. There are examples already in the Nigerian experience that can be built upon as a modular approach to eventual certification—alternative

programs to the NCE or alternative delivery of modules towards the NCE. These alternative and shorter programs could be structured as part of a modular approach if they were developed around teacher performance and competencies at different points. This would require more appropriate assessment of teacher performance based on what they do in classrooms and how they address teaching and learning problems confronted in teaching children in a variety of learning contexts.

Recommendations

There are two major over-arching recommendations arising from the discussions in this paper: (i) that a new approach be taken to teacher development that is based on greater proximity of the provision of teacher training services to the point of delivery at the school; and (ii) that greater emphasis be given to the development of teachers communication skills in the languages of instruction and in the pedagogies for developing children's language and literacy competencies. An integrated approach to implementation of these two recommendations would have the advantage of reinforcing the changes needed at the classroom and school level to improve practice, would represent a good way to improve language instruction ability, and would provide inherent incentives, while the overall incentive system is fixed. It can not solve all problems (such as poor language mastery of teachers), but it provides a good basis for most other issues presented in the paper.

Recommended steps are:

- ▪ Focus on getting it right for primary school teacher education. Review the current teacher education curriculum specifically through the lens of what primary school teachers should know and be able to do if they are to be effective teachers and students are to learn well. Define what primary school teachers should know and be able to do. Use these professional characteristics to review the current curriculum of all initial teacher preparation programs for primary school teachers. Establish performance benchmarks so that the teacher education curriculum can be modularized and delivered through multiple modalities and over different time periods. Place much greater emphasis on the link between theory and practice and design the combination of course work and school experience so that there are greater hands on opportunities for teachers to become reflective practitioners rather than dispensers of received knowledge. Link the initial teacher preparation and the induction processes to certification and further professional development opportunities through short courses on topics of special need, such as language and learning, language and literacy, English as a second language, how children learn mathematics and science.
- ▪ Continue to develop school-based teacher mentoring and professional support programs. Build these experiences into career development programs and incentive systems. Encourage schools to develop school quality improvement plans that will improve teaching and learning and that demand school mentoring services. Provide proposal-based school grants to enable them to carry out their teacher development activities. Encourage LGEAs to identify and support clusters of schools that need special assistance and provide proposal-based funding to LGEAs to carry out special programs (for example, in multigrade teaching in small schools, in Nigerian language and literacy in lower primary) in schools over a block period.

- Develop programs of staff development for colleges of education that address the requirements for training primary school teachers and linking their college work to practice in primary schools. Develop their action research capacities and provide incentives to become involved in mentoring, in-service training, and teacher performance monitoring in partnerships with schools and local governments. This will enrich their own college programs, contribute to primary school development and expand knowledge of practice in different primary school contexts.

- Examine the cost and financing of initial teacher education program and upgrading programs for primary school teachers. Provide policy options to states based on costs and benefits of different strategies to prepare and develop new teachers. Examine the impact of different strategies on teacher participation and provide options for financing teachers' initial preparation and their upgrading and further professional development. The budgetary implications of different strategies need to be considered: for example if the salary and wage bill doubles because all teachers are upgrading and receiving much higher salaries, then there will be fewer resources for books and materials and other education inputs from states. Policy options and strategies need to come out of the studies of costs and financing.

Introduction

This paper is a synthesis of the findings arising from four years of policy research and development in Nigeria's primary schools that focused on the gap between what teachers should know and be able to do and the realities of teaching and learning in classrooms.

The intended outcomes of the research and development program carried out by the Universal Basic Education Commission (UBEC) were to identify major shortcomings in teaching practices that impacted on student learning and to develop strategies for reform of teacher professional development that would begin to address inadequacies in teaching and learning.

There are other issues of concern about the school system in Nigeria that are not discussed fully here. These include issues of teacher supply and demand, teacher management and teacher conditions of service. These topics are discussed in other reports but the issues around teaching and learning in classrooms are not so fully documented. This paper intends to contribute to that discussion specifically.

The report begins by critically examining the outcomes of primary schooling as measured by learning achievement results from national assessments; and by identifying some core learning problems for Nigerian primary school children. It reviews the findings from recent research reports that studied teaching and learning processes in primary school classrooms and identifies the pedagogical issues in primary classrooms that contribute to the poor learning achievements. It describes a FGN/UBEC research and development program that set out to improve teaching and learning in core learning skills areas of the curriculum and to develop models for a school-based approach to providing continuing professional support to teachers.

The report draws together findings from the assessments of learning achievement, studies of classrooms and research and development activities and uses these to identify

priority areas for teachers' professional development if primary school quality is to improve. It suggests a policy framework for the continuing professional development of primary school teachers including the initial preparation of teachers and their induction into teaching. It proposes medium and long term strategies to bring about the desired changes in teaching and learning through school-based approaches to teacher development.

The report is divided into four chapters. The focus of each chapter is summarized briefly below.

Chapter 1 examines the results of national assessments of primary school students learning achievement between 1996 and 2003. Results show that there has been no significant change in learning achievements in that period and that results have been consistently low. An analysis of the results shows that key contributing factors to the unacceptably low results are weak literacy skills and low levels of English. It looks at findings from classroom observations and analysis of teaching and learning transactions. It uses these findings to summarize what primary teachers should know and be able to do if the students learning needs are to be met.

Chapter 2 examines teacher education and professional development. This chapter examines the structure and content of the Nigerian Certificate of Education and relates this to what primary school teachers should know and be able to do. It discusses current trends internationally for initial preparation of teachers and discusses possible areas for development in Nigeria based on experiences gained through the NCE program, action research and development into teacher mentoring and school support systems. The chapter also describes the three-year action research and development program set up by UBEC to address issues of teacher development, and to improve teaching and learning. It documents the lessons from experience of this program and uses these to inform proposals for content and approach to teacher development

Chapter 3 puts the findings of the previous chapters into an overall planning framework setting out core issues that affect changes to teacher policies. It identifies five sets of policy issues surrounding teaching and learning and professional development of primary school teachers.

Chapter 4 provides recommendations for policies and strategies for the reform of primary school teacher professional development and offers medium- and long-term strategies.

Appendix F contains a fuller account of the school-based teacher professional development research and development program that over the four-year period of implementation contributed considerably to building a broad constituency in Nigeria to seriously consider reform in the content of teacher education curriculum and the modalities of professional support to teachers. This program also contributed to the wider discussion about the importance of the role of language and literacy in the learning achievements of children in primary schools.

Background

Primary schools in Nigeria suffered years of neglect during the long period of military governments and from which the school system is still trying to recover. Democratic government was restored in 1999 and one of its first acts was to introduce a policy of universal

nine-year basic education policy. This renewed energies at the federal and state levels to improve primary schools. Over the past five years, state and federal governments have carried out a number of infrastructure improvement projects, piloted a variety of programs to address the needs of nomadic pastoralists, girls' education, alternative forms of teacher preparation and widening the curriculum of islammyya and Qu'ranic schools. In addition, a body of research into teaching and learning has been carried out over the past five years and the findings are building a better picture of the complexities of how to improve schools.

However, there is still a long way to go to achieve national and international goals for primary schools. Recent school census data suggest overall gross enrolment rates for primary to be 91 percent but there are very wide variations across states. Eighteen states had gross enrolment over 100 while eight states had ratios below 40. The situation in the first set of states resembles that in countries such as Uganda, Zimbabwe and Botswana while that in the second is closer to countries such as Niger, Chad and Burkino Faso.

While there appears to be an adequate supply of primary school teachers based on teacher student norms, again there is wide variation across states. Many states have a shortfall of teacher numbers and are likely in addition to have large numbers of teachers who have had no formal teaching training at all. The current national standard for teacher certification is a National Certificate of Education (NCE), a three-year program after twelve years of schooling. But only about 51 percent of teachers have obtained this level of certification after more than ten years of policy implementation. Most teachers have had no opportunity for in-service training since their initial teacher preparation program, and for those teachers that have participated in in-service training it tends to have been through the self-funded four-year part-time upgrading program for the NCE.

Despite recent efforts to upgrade schools, the conditions in which teaching and learning takes place are well below any minimum standard for effective teaching and learning. School infrastructure, furniture, books and materials are still in short supply. School profile data collected in 2003 indicated that 80 percent of the primary schools lacked basic school infrastructure (adequate classrooms, school furniture, blackboards); and that 60 percent of the schools lacked adequate curriculum modules and textbooks.

It is within this context that the activities to improve the quality of learning and teaching discussed in this paper took place.

Learning and Teaching in Primary Schools

Teacher's performance needs to be improved through effective teaching and operationalisation of the Nigerian education language policy in the classroom.

Assessments of Learning Achievements in Primary Schools

Results from three national assessments of learning achievement in Nigeria's primary schools carried out between 1996 and 2003 are far below expectations and very low by international standards.

In the 1990s Nigeria participated in the UNESCO/UNICEF supported Monitoring Learning Achievement (MLA) Project that measured student learning competencies in literacy, numeracy and life skills at the primary grades 4 and grade 6 levels across a number of Sub-Saharan and North African countries. In 2003 the Federal Ministry of Education again with UNESCO/UNICEF support replicated the MLA at the same primary school grade levels and in the same subjects.

The MLA (1996) results of grade 4 students indicated that students could answer correctly only 25 percent of literacy test items, 32 percent of mathematics test items and 38 percent of test items in life skills. MLA (2003) results at the grade 4 level show some increase in literacy scores but no significant difference in mathematics scores between 1996 and 2003. Mean scores for literacy changed from 25 percent in 1996 to 35 percent in 2003 and for mathematics from 32 percent to 34 percent (see Table 1).

The very low level of learning achievement of Nigerian primary school students is reinforced by comparison with international data. Of the 22 Sub-Saharan and North African countries participating in the MLA Project of the 1990s, the learning achievement of students

Table 1. MLA Result at Primary Grade 4 in 1996 and 2003		
	1996 (MLA)	**2003 (ESA/MLA)***
English language	25	35
Mathematics	32	34

Source: FME and UBEC, *FME, MLA replication results.

in Nigeria's primary schools were the lowest (see Figure 1) with national mean scores of 30 percent compared with 70 percent (the highest scores, Tunisia) and the median of 50.8 (Mali).

Figure 1. Monitoring Learning Achievement in Sub-Saharan and North African Countries in 1990s
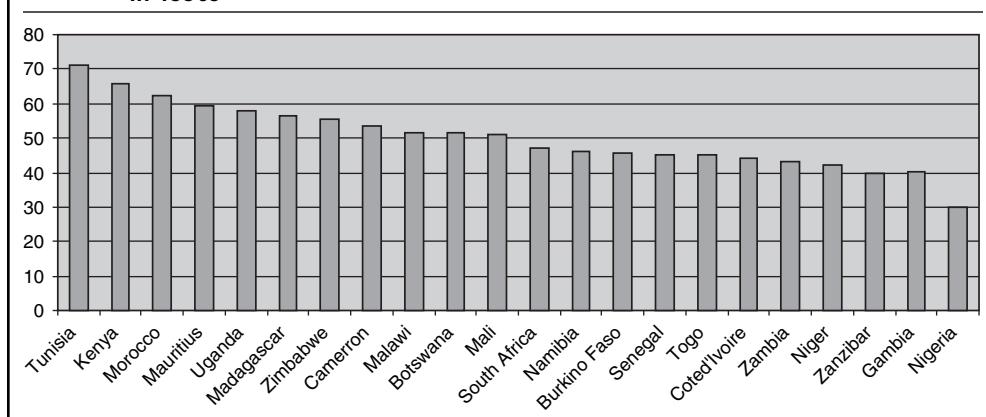
Source: World Bank, Nigeria Country Status Report, 2004.

In addition to the two MLA carried out in 1996 and 2003, the Universal Basic Education Commission (UBEC) carried out national assessments in 2001 and 2003. These were criterion referenced tests based on curriculum items from four core subjects in the primary school curriculum (English, mathematics, primary science and social studies). Tests were administered at grades 4, 5, and 6 levels.

Results from the UBEC curriculum based national assessment of grade 5 students in 2001 (the only grade level to be tested that year) indicated that only one in five students were able to answer correctly more than 30 percent of the test items. And, in the same assessment less than one percent of students were able to answer correctly more than half the test items.

In 2003, UBEC again carried out a curriculum based national assessment of learning achievement this time in the core subjects at grades 4, 5, and 6. Results show that mean scores across the four subjects are low at each grade level with students able to answer correctly about one in four test items in English and Social Studies and able to answer correctly about one in three questions in science and social studies. Grade 4 student scores range from 25 to 50 across the four subjects, grade 5 scores range from 25 to 39 and Grade 6 scores range from 21 to 40 across the subjects. Results at each grade level are lowest for English language and for social studies, a subject in which test items are highly dependent on literacy skill and language use (in this case English language; see Table 2).

Primary school student learning achievement results vary slightly across the MLA and the UBEC curriculum based national assessments and, in the case of the MLA, show

Table 2. UBEC National Assessment of Learning Achievement in Grades 4, 5 and 6 in 2003			
	Grade 4	Grade 5	Grade 6
English language	25	25	21
Mathematics	37	37	36
Primary Science	40	39	40
Social Studies	25	26	21

Source: UBEC 2003.

some positive change over time in literacy results. Yet, the evidence overall is of very low levels of learning achievement in the core subjects of literacy and mathematics that are the essential means of progress in school learning.

It is not too surprising that there has been no significant change in achievements since 1996. The condition of schools[1] is extremely poor and there has been no large scale intervention to improve classroom teaching and learning or to raise literacy standards in primary schools as a result of feedback from the learning assessments.

Language Development, Acquisition of Literacy and Learning Across the School Curriculum

Analysis[2] of responses on the national assessments of learning achievement at grade 4 and grade 6 levels show there is a strong correlation between higher scores overall and scores in English language, this is particularly so at the grade 4 level. Students in urban areas, students whose parents are professionals and students whose parents can read and write tend to have higher scores, as do those students who participated in extra lessons and assisted homework activities.

The overall low performance of students in the achievement tests was attributed to the low level of students' ability *to read* the test papers. This applies to students from both private and public schools, even though overall results were slightly higher in private schools than in public schools. And it applies equally to differences in results between students in urban schools and those in rural schools.

At the primary school level in Nigeria, there is evidence that success in answering the test items correctly is dependent on three things: (i) acquisition of literacy skills (to be able to read and understand the question on the test paper and ability to write the answer); (ii) fluency in English (that is, the vocabulary and syntax sufficient to comprehend the language of the test items and produce written responses), as well as (iii) knowledge and understanding of the concepts and operations being tested. For example, a student may understand mathematics concepts and operations in their own language but not be able to express these with English language vocabulary and appropriate syntax orally or in written form.

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1. School profile data collected at the time of the 2003 UBEC national assessment of learning achievement indicated that 80 percent of the primary schools lacked basic school infrastructure (adequate classrooms, school furniture, blackboards); and that 60 percent of the schools lacked adequate curriculum modules and textbooks.

2. Analysis based on MLA Reports 1996 and 2003; and UBEC national assessment reports.

An item analysis of mathematics indicated that the "easiest" items to answer correctly were test items that were less worded. This correlation between language, literacy, and learning is highlighted in the graph below showing results by public and private[3] schools, by worded and non-worded test items. Scores were highest on non-worded numeracy test items and scores were lowest on the literacy tests. Students were more likely to answer correctly those test items involving figures and number operations but not number problems that are language and literacy dependent. That is, student scores for numeracy were much higher on the non-worded numeracy test items than on the worded numeracy test items.

At any level of the school system there is a strong relationship between language development, acquisition of literacy and school learning. This is especially so in the early years of primary schooling and particularly in environments where students are expected to learn through the medium of a language that is not their home or community language. The national policy on education in Nigeria stipulates that education in lower primary grades 1 to 3 should be through the home or main community language together with the introduction of oral English in grade 1. The policy states that there would be a gradual transition to the use of English as the medium of instruction from primary grades 4 through to 6.

The language policy has been very poorly implemented to the detriment of student learning. English has become the default language of instruction at all levels of the primary school. This has arisen due to a number of factors. The major ones being a system of teacher education and training that has lost its focus on preparing teachers specifically to teach in primary schools within a multilingual society, and the lack of textbooks and teachers guides overall but especially textbooks in the major Nigerian languages for use in lower primary grades. Most often the only textbooks available in classrooms will be in English.

There is a large body of international research on bilingualism in education and the findings of the analysis above are not surprising. What is surprising is how little the relationship between language, literacy and learning is understood in the Nigerian education context. In the 1980s Nigeria was at the forefront of African research into the use of national and international languages in primary schools. The OA University/Ford Foundation supported Ile-Ife Primary School Language Project was a Yoruba medium program with English as a subject. Longitudinal studies and test results of students in both Yoruba medium and control schools showed that after six years of the Yoruba program learning achievements of students from Yoruba medium schools were higher than those in English medium only schools.

A comparative study of reading proficiency in Malawi and Zambia (Williams 1998) reflects similar findings. At the time of the study, the national policy in Malawi was to teach in a national language from primary grades 1 to 4 with English as a subject. And then in

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3. Most private schools use English for instruction from class 1. They are favored by parents concerned at the extremely poor conditions of public primary schools and by those who expect that English medium schools will give their children a head-start in passing the Grade 6 examination and selection into a secondary school of their choice. However, analysis of grade 6 students writing skills in a small sample of private schools across six states (Olaofe 2003) found that 30 percent of the sample could not read or write and more than half the sample could not write numbers in words; use correctly capitals, commas or questions marks; and were incapable of subject-verb agreement or able to pluralize.

Figure 2. **Numeracy and Literacy Score Result**
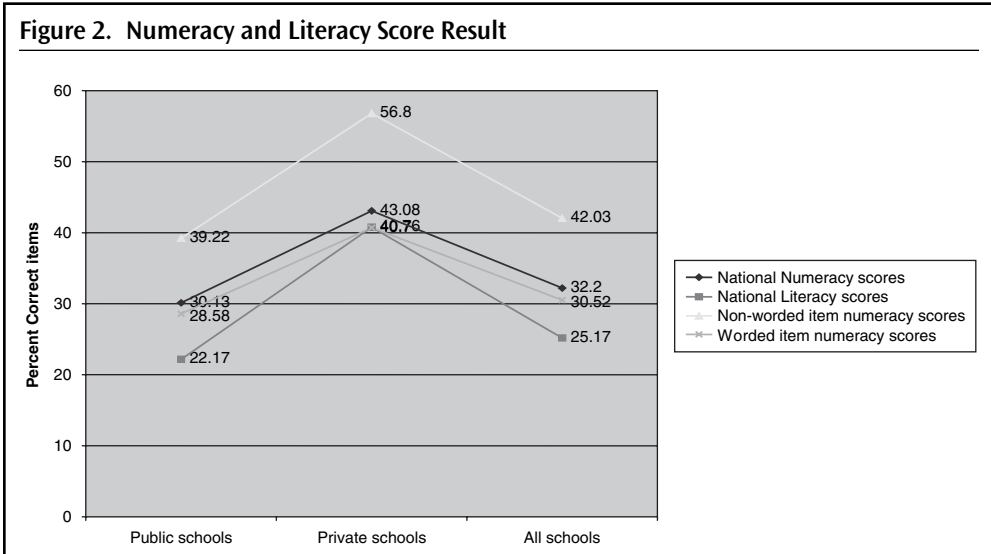
upper primary grades, to introduce English as the medium of instruction with the national language as a subject. On the other hand, Zambia's language policy was 'straight for English' from grade 1 with a national language as a subject.

Based on observations, reading tests and individual assessments, the study found that at the grade 4 level the English reading proficiency of pupils in both countries was low and at about the same level, despite the pupils in Zambia having four more years of English teaching. On the other hand, Malawian pupils had much higher reading proficiency in the national language than Zambian pupils where there was little focus on the national language. In both countries, the reading proficiency of students in English was found to be inadequate for learning other subjects in the curriculum. A situation that is similar to that in Nigeria.

Zambia's concern at the low literacy levels of primary school students led to changes in language policy and the introduction of initial literacy instruction through a community language before the introduction of oral English in Grade 2. Results over a two year period of piloting showed an increase in students reading proficiency: Grade 2 students were able to read and write at a level equivalent to Grade 4 or above. Since then the teaching and learning materials have been translated into seven Zambian languages used for education and the 'New Breakthrough to Literacy' primary reading programme is implemented nationally. Nigeria might learn from the experiences of Malawi and Zambia.

Classroom Teaching and Learning Interactions

The implementation of the universal basic education program in 2000 raised awareness of the low learning outcomes and the poor conditions of primary schools. The Federal Ministry of Education's education sector analysis (report 2003) and UBEC studies of teaching and learning in primary school classrooms have contributed to better understanding of the

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Box 1. Investigating Bilingual Literacy: Evidence from Malawi and Zambia

The education language policy in Malawi provides for local language (Chichewa) medium for grades 1 through 4 with English as a subject and then English medium. The language policy in Zambia goes "straight for English" from grade 1 with the local language (Nyanja) as a subject. Based on observations, tests and individual reading at the grade 4 level the results of reading proficiency show:

♦ Little difference in English reading proficiency between the two national groups, despite Zambia having four additional years of English.

♦ Teaching of reading in English is not effective. The great majority of pupils almost certainly do not read English well enough to be able to use this skill to learn other subjects.

♦ Where there is higher proficiency in reading English, this tended to be associated with home backgrounds where family members have relatively high status jobs.

♦ Malawian pupils read much better in the local language than do Zambian pupils.

♦ In Malawi local language the results do not discriminate against rural pupils and girls; unlike the English reading results.

♦ There are considerable urban/rural differences in English reading efficiency in both countries, with the urban areas outperforming the rural areas.

♦ In both Malawi and Zambia, many pupils do not see reading in English as a 'meaning making' process, possibly because their level of English is so low.

Source: Williams (1998).

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magnitude of the task to improve school quality and to meet the professional and pedagogical needs of teachers that will lead to increased student learning.

Recent studies of teaching and learning include a national sample survey of classroom interactions at primary grades 3 and 6 and junior secondary class 3; a national sample survey of stakeholder perceptions of classroom performance of new teachers who recently graduated with the Nigerian Certificate of Education (NCE), and tracer studies of both NCE graduates and other teachers who were trained through the accelerated program for primary school teacher preparation (Pivotal Teacher Training Program).

In addition to the national surveys, UBEC led a three-year program of action research and development to improve teaching and learning in primary schools with an emphasis on language, literacy and learning and the development of models for a school-based teacher mentoring and professional support system.[4] The aim of the action research and development was to investigate what could be done to improve language, literacy and learning through Nigerian languages in primary grades 1 to 3 and through English language in primary grades 4 to 6, and to improve learning (language and literacy) in small, rural schools with multigrade teaching and learning environments.

The school context in which the action research program began is highlighted by the extract in Box 2. This is taken from a baseline report at one research site but the baseline reports from all sites in 10 participating states were similar.

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4. A full description of the school-based teacher professional support program to improve language, literacy and learning in primary schools is provided as a supplement to this main report.

Box 2. Situation Analysis, Action Research Program, Primary Grades 4–6, Sabon-Gari, LGA, Kaduna State

All of the twenty-four schools involved in the action research reported here were typical public schools in rural, semi-urban and urban areas exhibiting all of the now-familiar deprivations in basic infrastructure and other facilities.

Many children sat on the bare floor and teachers had neither tables nor chairs. In rural classrooms, the windows, doors and ceiling were often gone. Textbooks were often very limited, generally in the ratio of 1:8 or worse. The copies of Straight for English and Longman's Primary Mathematics texts supplied by the defunct National Primary Education Commission (NPEC) under a World Bank project were never adequate in quantity and often simply kept in the head-teacher's office. Where available these textbooks were generally at the frustration level, that is, way above the pupil's ability. Pupils couldn't read them independently. A very high percentage (over 90 percent) of the pupils could hardly read and write, especially in rural and semi-urban schools.

Source: Adeyanju (2004).

Findings of the national studies of classroom teaching and of the school-based research and development program[5] identified major areas of concern in teaching-learning processes and the dynamics of classrooms and schools. These are summarized below.

Language Use in the Teaching Learning Process

The language policy is not well implemented or supported so teachers of early primary grades tend to use an unstructured mix of English and Nigerian language. It was observed that at the grade three level, teachers were using English about 70 percent of the time but the English textbooks were too difficult for the children to read and there were few if any supporting texts in Nigerian languages.

Teachers had a very narrow repertoire of pedagogical skill in areas such as Nigerian language learning and literacy, teaching through the medium of a Nigerian language or through the medium of English in upper primary, and few methods and techniques for introducing and developing literacy. Reports also noted that at upper primary levels (grades 4–6) children were barely literate in either Nigerian language or in English and had little foundation of mathematics and science concepts that might have been acquired in the early grades if children had been able to learn in a language they understood.

It was also reported that in town schools where there could be a large number of language groups represented in a class, the teachers had little understanding or pedagogical skill to help them to teach in these multilingual contexts.

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5. Data in this section is extrapolated from several research reports: How Children Learn: Classroom Interaction Analysis at Primary 3 and 6 and in Junior Secondary School class 3 (University of Ibadan), Stakeholder Perceptions of Recent NCE Graduates (University of Ahmadu Bello, Zaria), Tracer Study of the PTTP graduates (National Teachers' Institute), Improving Teaching and Learning through School-based Teacher Development (UBEC); and, a small study, Teaching Methods Used in Primary Schools in Kaduna State (Y. J. Mivanyi for the Kaduna State Primary Education Board); and from action research reports held at UBEC.

Teacher Communication Skills

Classroom observation reports comment frequently on teachers poor communication skills either in their own languages or in English and their lack of ability to communicate to children on subject matter in the curriculum. Field research reports noted: "Teachers in the grades 4 through 6 not only lacked the necessary background to teach reading, writing and mathematics effectively, they were generally weak in English and unable explain lessons through the medium of this language (or indeed in the Nigerian language)."

Involving Children Actively in the Teaching Learning Process

As was observed in the classroom interaction study children are actively involved in learning for only a very small part of a lesson. Most of the time the teacher is talking or disciplining the children for being noisy and disruptive. Most teachers have not had any in service teacher training since they graduated from their initial teacher training program and have become "deskilled" by the challenging environments in which they have to work. The most important contributor to the active participation of children in the lower grades especially was found to be the structured use of Nigerian language.

Organizing Groups

Few, if any, teachers even in the small multigrade schools had any experience of organizing students in groups for shared learning tasks. Observations of use of instructional time (above) and observations in small multigrade schools highlights the need for teachers to be able to group children for different learning levels and different kinds of learning activities. From classroom observations and study reports this seems to be one of the most difficult pedagogical and management tasks for teachers. Addressing this teaching problem is compounded by the lack of materials in classrooms.

Monitoring Progress in Children's Learning

Formal testing and examinations play a large part of a child's life in primary schools. In addition to annual examinations, and examinations at the end of the primary cycle, very often there are term tests and monthly tests. Yet for most teachers observed, routine monitoring during classroom interactions is not part of their repertoire of skills. Where teachers do note student's errors, they have few diagnostic techniques to know how to help the child. There are no objective criterion tests or standards that teachers can use to measure student's learning progress in any subject of the school curriculum.[6]

Use of Instructional Time

A great deal of school time is lost due to teacher and student absenteeism, reduction in the actual numbers of days in the year that the school operates and poor use of instructional time

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6. The community's judgment of school performance is likely to be measured by results on the common entrance examinations at primary 6 and this of course influences how teachers teach (the common entrance exam will be phased out in 2006). Teacher promotion is based on years of service and academic qualification but not on classroom performance.

during the school day. From classroom observations findings are that much of the school day is spent in unproductive activity (that is, the teacher is not instructing, the children are not engaged in any learning activity). A large part of this absence of learning is due to lack of teaching materials—even the basics such as chalk, exercise books, pencils and a textbook or teachers guide. However, teachers' poor pedagogical competence and lack of communication skills are also major contributing factors.

In schools with large class sizes and poor teacher deployment practices, teachers spend a great deal of the time in disciplining and teacher directed activity. From classroom observations (in the national sample that included public, private and islamiyya schools, and teachers with varied qualifications and experience) of a 30 minute lesson, children would be actively involved in an individual learning task for about eight minutes—the rest of the time is either unproductive time or teacher monologue of the "chalk and talk" variety with little opportunity for children's responses. When teachers asked questions they were usually of recall type, directed to the whole class and answered in chorus by the class.

Baseline reports from action research programs in schools in ten states, reported that primary school teachers did not regularly plan their lessons, rarely prepared any activity to assist children in the learning process nor developed instructional material for use in lessons.

Teacher Teamwork

The items above relate specifically to teachers' pedagogical competence and help to explain why results of student learning achievement assessments remain so low. At the level of the school, there is another important research finding that relates to teachers' professional capacity to solve problems in teaching and learning. Baseline surveys found that in large schools, with large classes and several teachers in the room together, the teachers might divide up the teaching between themselves based on subject matter. In these cases, there was very little connection made for the primary school learner between what was taught in one subject lesson by one teacher and what was taught in another subject by a different teacher. Even in large schools with multiple streams of the same grade level, teachers did not on the whole share lesson planning or agree on how to maximize use of scarce resources (textbooks, preparation of instructional materials). There was a tendency for each teacher to work independently of the other.

Overall

In summary, findings of the studies of teaching and learning help to explain why student learning achievements remain low. Teachers are not able to use instructional time effectively and students spend little of the time in schools on productive learning activities. The major contributing factors to this are the lack of appropriate textbooks and other instructional materials. However, even when textbooks are available they are often not in the right language and at the right reading levels for students or in compliance with national policies on language in education.

Teachers are not well informed of language policies or well trained to teach in their own language or through English as a second language. Their own communication skills are poor and they have difficulty in using Nigerian and English languages to teach subjects across the curriculum. Monitoring students learning progress is limited to poorly designed tests and teachers do not know how to use the information to remedy student errors or to

construct learning opportunities for students who learn at a different pace. They tend to work in isolation from other teachers even from other teachers in the same school who may be teaching at the same grade level. This limits opportunities to share experiences and learn from each other or to jointly develop lessons and instructional materials.

The findings from all the studies, field visit reports and research activities have highlighted the overall poverty of the teaching and learning environment in primary schools throughout the country. It is certainly not an environment conducive to learning and sentiments of parents are captured well in the quotation in Box 3.

Efforts to meet teachers' pedagogical needs will have to go hand in hand with improvements in provision of textbooks and reading materials in the appropriate languages, basic furniture and a safe and healthy physical environment. Then there may be better student learning outcomes.

Box 3. Confronting the Crisis in Education

The education system in most areas of the country . . . is in a terrible state of crisis—much more acute than is generally realized. Looked at from the perspective of a poor family, investment in education is an expensive and often unrewarding gamble. . . . When your child comes home complaining that they were beaten or harassed or that no teacher arrived today, or that they have no textbooks or cannot understand the language the teacher uses, it is hard to keep faith in the value of schools. When your child is small and cannot hear or be heard in a class of up to one hundred other children, and when, at the end of the year your child is unable to pass the exams you had to pay for, and has to start again from scratch, it is difficult to know whether to blame your child or the school.

Source: Action Aid, *Global Education Review* (2003), p. 74.

Summary and Conclusions

A lot has been learned in Nigeria over the past five years about classroom interactions in the nation's primary schools and the conditions under which learning is expected to take place. There are a number of interventions in place that aim to improve the teaching and learning environment. The focus of this paper is on learning and teaching and the kinds of professional development programs for teachers that will contribute to bringing about better learning outcomes for students especially in regard to language and literacy (including basic numeracy) as the core skills for continued school learning.

The analysis of learning assessment results and findings from research studies and school experiences have highlighted the areas of knowledge and pedagogical skill that Nigeria's primary school teachers need *to know and be able to do* in order to be effective at lower primary school grade levels, at upper primary school grade levels as well as in small rural.

Based on evidence from the research studies and action research programs carried out across ten states in the past five years together with lessons from international best practice, researchers and stakeholders in Nigeria concerned with teacher professional development programs summarized the most important things primary school teachers should know and be able to do to be effective teachers in Nigerian primary schools. Teachers should:

■ Know their own/main Nigerian language well and be able to prepare lesson plans and teach all subject content across the primary curriculum in that language.

■ Know how to speak, read and write English fluently and well themselves. They need to know how children learn languages. They need to know and understand how children learn English as another language. They need to be able to use appropriate methods and materials to teach English orally as a subject in the curriculum in lower primary grades; as well as, teaching English both as a subject to be taught and as the means for learning other subjects in the upper primary school curriculum

■ Know about reading as a cognitive process and how to introduce writing and reading to beginners in a Nigerian language and be able to develop literacy skills in upper primary students through both the Nigerian language and through English as the language of learning across the curriculum at that level.

■ Know how children learn and about differences in learning style and they need to be able to monitor children's learning progress and to make adjustments to suit children's learning needs.

■ Know how to manage learning in the classroom: how to prepare teaching plans and lesson notes, how to use the blackboard and textbooks effectively, how to monitor children's written work in their exercise books, how to assess progress and take remedial actions, how to organize learning tasks for individuals, in pairs or in groups, how to prepare appropriate re-usable instructional aids.

■ Know how to work collaboratively with other teachers in the school and with parents.

■ Know how to reflect on their own teaching practice and the impact it has on children's learning and be able to bring about a change in their teaching to respond to learners' needs.

The next chapter examines primary teacher education, training, and professional development as it is currently implemented in Nigeria in the light of these statements.

The Professional Development of Primary School Teachers

Teacher preparation needs to be improved or overhauled particularly at the primary school level so as to help children learn effectively; and teachers should be given more opportunities for additional in-service training or incentives to improve their teaching performance.

The Structure and Organization of Teacher Education Programs for Primary School Teachers

Initial Preparation of Teachers for Primary Schools

The Nigerian Certificate of Education (NCE) was set in the 1990s as the minimum standard qualification for primary and junior secondary school teachers. The three-year course for high school graduates is offered at 82 sites in 20 Federal Colleges of Education, 41 State-owned Colleges of Education, 9 Polytechnics, and 11 other public, private and religious institutes. The NCE is also offered through distance learning modes by the National Teachers' Institute. Each college awards the NCE based on a common curriculum set by the National Commission for Colleges of Education and students elect to specialize in primary education studies or major in teaching subjects for junior secondary schools.

In 2003 less than half of all primary school teachers held an NCE or above qualification and the range of NCE holders is wide across states (see Appendix A). For example, the share of primary school teachers holding the NCE is 30 percent or less in 13 states (most of them northern states where education indicators are very low overall), whilst in two states (Osun and Oyo) over 80 percent of primary school teachers have the NCE. At local government levels, the distribution is also uneven. Schools in urban areas and larger towns

are more likely to have a larger share of NCE holders than schools in rural areas. In Benue state, for example, in 2003 there were twice as many NCE holders teaching in urban schools as in rural schools.

Even assuming that the NCE provides high value education and training for new primary school teachers, the numbers of new NCE graduates who have specialized in primary education remains too low to have a meaningful impact on primary school quality. In many states, where primary school enrolment needs to increase if EFA targets are to be met, output from colleges of education is far lower than demand for teachers for primary and junior secondary schools. This concerns state planners who are confronted with the need to meet quantitative and qualitative demands for primary school teachers.

NCE Upgrading Program for Serving Teachers

Much of the national increase in teachers with NCE since 1996 is due to teachers' participation in upgrading courses, especially the distance education programs but also through part-time and vacation courses ("sandwich" programs) at colleges of education. The salary incentive is high for serving teachers to upgrade their qualifications—to upgrade from the older Grade II certificate to the NCE means an increase of 50 percent in monthly base salary. In addition, public service salaries were harmonized in 2002 and teachers' salaries overall increased by more than 200 percent from 1998 to 2002.

The NCE curriculum is the same for pre-service and upgrading programs. There is no recognition of prior experience or training and credits towards the upgrading NCE course. So it is not too surprising that teacher participation in upgrading courses has been declining.[7] The declining numbers are attributed to the high personal and opportunity cost of part-time study, and market/employer response. Many local governments found they could not afford to pay the additional salary increments of serving teachers who upgraded and so retained them at the lower pay scale levels. There is also doubt amongst employers that the upgrading programs add value to teachers' classroom performance.

Nearly half the current stock of primary school teachers still does not have the NCE. Many of these are teachers who trained in teachers' colleges in the past and who received the Grade II Teaching Certificate. In addition, however, in some states such as Borno, Ebonyi, Katsina, and Taraba, 40 percent or more of the primary school teachers in the state do not have *any* teaching qualification.

Alternative Programs for Initial Preparation of Teachers

To meet anticipated demand for large numbers of additional teachers for the UBE program, the federal government piloted and implemented an accelerated primary teacher training program (the Pivotal Teacher Training Program) based on distance learning modalities. And, the National Commission for Nomadic Education, working in collaboration with the Federal College of Education at Yola and the National Teachers Institute, was able to support a Grade II Teaching Certificate for community members who would teach in nomadic communities. In some states, special teacher training programs for teachers

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7. Although this may change. In 2006, the federal government regulated that all under-qualified primary school teachers must register for the NCE upgrading program by December 2006.

in islamiyya schools that follow the national curriculum are being carried out, following the PTTP or Grade II certificate program.

The increasing demand for primary school teachers may require different approaches to initial teacher preparation along the lines of the PTTP program with its combination of distance education, face to face tutorials and integrated school experiences. The initial block of study and teaching is completed within 18 months. Additional distance education and school experience modules could be added to this and linked to other school-based professional development activities to lead to a full teaching certificate.

The Quality of Teacher Education Programs

Curriculum of Primary School Teacher Education

The previous chapter listed *what primary school teachers should know and be able to do to teach effectively in Nigeria's primary schools* based on the research findings and school experiences discussed above. They are a fair reflection of international trends in teacher education identified in the Organization for Economic and Cultural Development (OECD)[8] survey findings of *what teachers should know and be able to do.* Certain characteristics such as working collaboratively, reflecting on practice and structuring teaching to meet learners needs are missing from teacher education programs and the gap is wide between what new teachers should know and be able to do to teach effectively and the results of their pre-service training.

The NCE program began as a pre-service training program for subject teachers who would teach in junior secondary schools. In response to feedback from the classroom studies and teacher surveys the National Commission for Colleges of Education (NCCE) recently modified the NCE curriculum by expanding the Primary Education Studies (PES) component to cover a range of topics related to the primary school curriculum. In this broadened course structure, about 65 percent of course work over the three year program was devoted to a broad range of traditional teacher education subjects. However, the emphasis is on theoretical knowledge and passing examinations in these subjects. School experiences are deferred until the final year of the course when students take a 12 week block of practice teaching. Course details for the PES and its place in the NCE program are shown in Appendix C.

Conditions for teaching and learning in colleges of education are inadequate, and in many ways reflect the school system itself. Physical infrastructure is in a poor condition and inadequate for the numbers of students. Textbooks and libraries are limited and course material is often photocopied by lecturers to be sold to students in lieu of textbooks and course materials. The teacher educators have few if any opportunities themselves for staff development programs and most of them lack subject knowledge and expertise appropriate to training primary school teachers or in providing them with coping strategies for the kind of school environments they will work in. The introduction of the expanded PES component of the NCE was not supported by staff development programs or by restructuring the staff hiring criteria to match needs of the curriculum.

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8. OECD (2001) surveyed teacher development programs internationally and identified common trends in "what teachers should know and be able to do."

There is a need to carry out an assessment of staff capacities in the colleges of education and the match to desired reforms of primary teacher education and training. Along with this there is a need to set in place an incentive system for professional development of teacher educators themselves. The school-based teacher professional support programs of research and development described earlier highlighted the need for upgrading teacher educators own skills and knowledge relating to learning and teaching in primary schools. For many of the college mentors/facilitators in the program it was the first time that they had been involved so closely and in a sustained way in mentoring teachers in classrooms. For colleges of education, links with schools and the practical problems faced in the teaching and learning situation should be an essential part of the professional growth of the institution as well as for individual members of staff. International research indicates that effective teacher education programs are those that combine sound theoretical knowledge with frequent practical applications in different classroom settings and hands on school experiences throughout the course. This applies equally to the curriculum of teacher education programs as it does to staff development programs for teacher educators.

The gap between *what a beginning primary school teachers should know and be able to do* (above) and the NCE program is still wide when reviewed through the lens of the research findings and what takes place in the three year program. As part of the current review of pre-service teacher education curriculum (Adeyanju 2005) teachers and head teachers and others were asked to assess the match of NCE curriculum content to the actual teaching tasks required of primary school teachers. The survey questions were framed at a time when there was rising interest amongst the teacher education community about primary teacher education resulting from dissemination of findings from the various studies and from the school-based teacher professional development program.

The pre-service curriculum review findings indicate that only about one third of the teachers in the sample felt that the NCE curriculum satisfactorily prepared teachers to teach in primary schools in subject knowledge and pedagogical skills for language development, acquisition of literacy, and the development of languages and literacy as learning tools across the curriculum.

Table 3. Survey Assessment of Match of NCE Curriculum to Teaching Tasks in School	
Category	**Satisfactory**
Preparation for teaching in small rural schools	31.5
Preparation for using Nigerian language to teach all subjects in grades 1–3	29.4
Teaching practice using Nigerian language	26.9
Preparation for teaching reading through a Nigerian language	28.7
Effective techniques to develop children's oral, reading and writing skills in all subjects	38.5
Preparation for teaching initial reading and writing skills in English	36.7
Preparation for teaching basic numeracy skills	69.6
Critical analysis of National Policy on Education	32.9
Critical analysis of National Primary school curriculum	33.2
Critical analysis of the major primary school textbooks	30.3

Source: Adeyanju (2005).

Quality of Teacher Educators

Many of those who teach in colleges of education were secondary school teachers and would have trained originally as a subject specialist for the school curriculum. This means that those who teach the PES programs in colleges of education and who are responsible for training primary school teachers have little experience themselves of teaching in primary schools or have backgrounds appropriate to preparing new teachers for primary schools as grade teachers. There is no systematic induction program for those new college lecturers who enter the colleges of education, and there are few opportunities for teacher educators to develop their own professional knowledge and skills.

The lack of professional development as a teacher educator, specializing in fields of knowledge appropriate to primary school education, is common across other countries in Africa as international studies have shown. Reports from the Multi-Site Teacher Education Research Project (Lewin and Stuart 2003) which surveyed primary school teacher preparation in five countries,[9] four of them in Africa, found this to be an underdeveloped topic of discussion and practice in policy reform related to primary education.

In Nigeria, the school-based action research program used facilitators/mentors from institutes and colleges of education and found the need to provide staff development workshops on language and literacy development and approaches to teaching in small rural schools with multigrade teaching to both retrain and to update the teacher educators themselves in practices and approaches to training primary school teachers and working in primary school classrooms. The role of teacher educator as a facilitator and mentor in the change management processes in classrooms over a period of a school term or more, provides a good example of what could be put in place in Nigeria to build college staff capacities, to establish links between schools and teacher education programs and to make teacher education programs better oriented to the clients the colleges serve.

Conferences of researchers and other stakeholders involved in the school-based teacher professional development programs identified what primary school teachers should know and be able to do (see Chapter 1). Based on that list, the group also identified what teacher educators should know and be able to do if they are to be effective trainers of teachers for primary schools in the country. The list included:

- ■ Teacher educators should have in depth knowledge of at least one Nigerian language and how it should be taught as a subject in the school curriculum and how to train teachers in this field of knowledge. They should know how language learning impacts on learning all subjects in the curriculum and be able to train teachers in methods and techniques for developing children's communication skills across the school curriculum in the Nigerian language.
- ■ Teacher educators, who have specialized in English as a second language as a field of expertise, should know appropriate methods and techniques for introducing English to children and how to develop communication skills in English across all subjects in the curriculum. They should know how to develop teachers understanding and practices in developing children's mathematical and science concepts and expand teachers' knowledge of the linguistic implications in teaching all subjects across the curriculum in English.

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9. Ghana, Lesotho, Malawi, South Africa, and Trinidad and Tobago.

■ Teacher educators should be able to prepare new teachers for the conditions that exist in classrooms and be able to provide them with coping strategies for teaching in resource constrained environments. And, they should be able to link theory and practice of teaching through a range of structured and reflective school experiences throughout the period of the course. They should be able to help new teachers to become reflective about the practice of teaching and they should develop more flexible ways to assess the teacher trainees' performance.

Currently there would be few teacher educators in the colleges of education who deliver primary education studies programs who could match these characteristics. The whole field of career development of teacher educators (staff development, selection criteria, performance standards and incentive systems) is an area of much needed development in the Nigerian context and especially in the specialist field of primary school teaching.

Perceptions of NCE Recent Graduates Teaching Performance

Public perceptions of primary school teacher performance often allude to "old style" teachers, (that is Grade II teachers who were trained as primary school grade teachers[10]), as better primary school teachers than recent NCE graduates. To investigate these claims, UBEC commissioned an independent study of recent graduates of different NCE delivery modes. The study sought the views of a variety of stakeholders (school principals, school supervisors, parents and the graduates themselves) on teachers' performance. The study[11] of perceptions of teacher quality revealed that:

■ Most of the teachers in the sample who had gained their NCE through a fulltime, initial teacher education program at a college of education had a positive self-image. They attributed their sense of status to having had more schooling than older teachers (12 years rather than 10 years), a longer teacher training course (three years not two years) and starting at a higher base salary (about 50 percent higher). They did not link these attributes to better performance in the classroom or claim that students in their class achieved better results.

■ At least one third of the teachers who gained their NCE through part-time or distance education programs were dissatisfied with the outcome of their efforts. This was attributed to the length of time it took them to complete the course (at least four years and in many cases longer), the high opportunity cost of having a fulltime teaching job at the same time as undertaking the course, the private cost and their perception that there was little direct value added to their classroom teaching. This group also expressed dissatisfaction that there was no credit given for prior teaching experience and other training. These teachers gained most satisfaction from knowing that having the NCE led to increased salary and further career options: opportunities to teach in the private sector or in secondary schools (especially federal secondary schools "unity schools" where the rewards are higher) or to continue for degree programs.

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10. A two-year program as part of the final years of secondary education and now phased out and replaced by the NCE.

11. UBEC (2002): Stakeholders perceptions of recent NCE graduates, report of a national study.

■ Stakeholder (local government employers, head teachers, parents, teachers' union) expectations that NCE graduates would perform better in primary school classrooms than those holding only a Grade II certificate were disappointed. Many could not see evidence that children were learning more or that teachers could keep young children actively involved as a result of the additional training. A noticeable difference in stakeholder perceptions about teacher performance related to adequacy of training in language for the curriculum. Whereas nearly all NCE graduates themselves felt they had adequate preparation to teach in bilingual environments, just over half the school managers felt teachers were inadequately prepared to teach effectively in the languages used for medium of instruction, especially in the lower primary grades.

■ Teachers graduating with the NCE do so as subject specialists for junior secondary or 'generalist' specialist primary school teachers. However, teachers are not always appointed to teach at school levels that match their training. In the study sample, 15 percent of the NCE graduates who specialized in primary education were teaching at the secondary level and about 60 percent of NCE graduates who were subject specialists were teaching in primary schools. Teachers in primary schools who had specialized in the secondary subject specialist track in their NCE training felt neither confident in taking grade teaching roles nor wished to do so in many cases.

■ An interesting finding of the study is the difference in perceptions of teacher performance amongst stakeholders. Teachers are not particularly self critical of their own teaching and the learning process. On the other hand, school managers expressed their dissatisfaction with teaching-learning outcomes in their schools but had limited views about how to improve school performance.

Professional Development for Primary School Teachers

A framework for the continuous professional development of teachers would include these elements: relevant initial teacher preparation programs, mentoring and support during the induction process into the daily life of schools, assessments of performance and access to continued professional support to develop pedagogical skills and understandings; and crucially, incentive systems that recognize and reward effective performance in the classroom. Some of these elements are beginning to be put in place in Nigeria but there is not yet a coherent framework that guides teachers' career development or that ensures that teacher in-service training benefits schools in the form of better student learning outcomes.

Continuing Education and Training in Fields of Knowledge and Practice for Primary School Education

Regular recurrent programs of in-service training for teachers are not widely available, largely due to budget constraints and lack of incentives for participation. Where there are programs of in-service teacher training, they have tended to be conducted through workshops without much direct link to school programs or follow-up in classrooms.

The UBEC program of school-based teacher professional support discussed above was an attempt to develop alternative models of in-service training and teacher support that

would be focused on the needs of teachers and schools, and be facilitated by on-the-job mentoring. A program of school development activities was prepared for a school term and teachers with school principals held joint lesson planning sessions supplemented by monthly workshops with teachers from a cluster of nearby schools.

The program was designed around the characteristics of effective in-service training programs identified in Craig and others (1998; see Box 4 below) and was supported by facilitators led by college staff and school supervisors. The program was carried out in selected school clusters in 10 states over a period of three and a half years with the objectives of improving language, literacy and learning in primary schools and of developing more effective means of delivering in-service training to teachers. An analysis of the program implementation based on the characteristics identified by Craig illustrates how well it was able to fulfill these criteria (see Appendix E). A full description of program is provided in the Appendix F.

Box 4. International Study of Teacher Development Program

Craig and others (1998) in an international study of teacher development programs, found that Effective in-service teacher training tends to do these things:

♦ Focus on concrete and specific training for instructional and management practice,

♦ Relate appropriately to the current needs of the teacher,

♦ Involve teachers and other staff in the planning and implementation of both short and long term activities,

♦ Include small group workshops, peer observations and feedback, coaching/mentoring and demonstrations,

♦ Ensure implementation in the classroom of the acquired learning,

♦ Provide continuous guidance and support (head teacher, peers and other teachers),

♦ Have the support and participation of the head teacher and other leaders,

♦ Enable participation through release time,

♦ Provide regular meetings for problem solving, often within a school cluster,

♦ Fit within the context of the local community and school culture, and

♦ Fit within broad, long-term professional development and school improvement programs.

The four major recommendations for primary school teacher development resulting from the program that were identified by the research and development teams as being of importance to quality improvement in primary schools were:

■ Teacher professional development programs should focus on developing teachers pedagogical skills for teaching languages, introducing literacy and developing children's learning skills. This means teachers need to know how to teach through the medium of the main community language, in bilingual contexts as well as know how to use appropriate methods of teaching English to speakers of other languages. In addition, because of the large number of small schools, especially in rural communities, teachers should know how to organize and manage learning multigrade teaching contexts.

- Teachers and school principals are critical partners to school quality improvement. To be effective, this professional support requires a partnership of teachers, head teachers, communities and supervisors. And, to this end, professional support should be focused on the needs of teachers in their own schools and classrooms.
- Staff in colleges of education needs access to their own professional development programs to enable them to train primary school teachers well for the kind of teaching situations that exist in Nigerian primary schools; and
- There is need for further classroom research and study to better understand the wide range of teaching and learning contexts in Nigeria and the implications for teacher development, curriculum content and textbook design.

Some progress has been made towards more school-based approaches to teachers' professional development but there is a long way to go and the tendency is to slip back into the traditional range of centrally organized workshops that have no direct link to school contexts and have no structured followup. Opportunities for more flexible school-based approaches to in-service training are opening up for states and local government with the provision of additional funds provided through the UBE matching fund grants (sourced from the debt relief program), and fifteen percent of which is to be used for teacher development activities.

Teacher Performance Monitoring

Most teacher performance monitoring is carried out at the school level by head teachers and their assistants and tends to focus on general characteristics of behavior and supervision of lesson plans and schedules of work with some observation of teaching. However, as teachers are promoted solely on the basis of the number of years' service there are few incentives to improve performance over and above upgrading to the NCE. As yet, there are no school or teacher performance standards in place; there is little demand from parents or incentive for schools and teach.

Costs and Financing of Teacher Education

In the most part, teachers pay for their own pre-service teacher education albeit at a subsidized cost. Moreover, most primary school teachers pay for their own upgrading programs. In many states, with teacher shortages and/or large numbers of under-qualified teachers (as measured by the current NCE standard), some state governments have been using their resources to support teachers through shorter initial teacher preparation programs like the PTTP and the Grade II certificate program. Many are paying for teachers to participate in NCE upgrading programs through distance education modalities or through vacation courses in colleges of education.

Very little research has been carried out in Nigeria into the cost and financing of primary teacher education and training. Nor has there been any empirical work to examine the costs and benefits of different delivery modalities in terms of improved teacher performance in classrooms. Given the large share of teachers in the country who are expected to meet the NCE standard, the public and private costs and benefits of different strategies for training, upgrading and continuing to develop primary school teachers need to be

examined. The findings would provide some evidence and an empirical basis for choosing options and strategies to meet state and local government demands.

Incentive Systems

Essentially, there is no incentive system in place now for teachers' classroom practice or school performance to change. As a matter of fact, the incentive system that is in place awards qualification and certification but, not performance. Even this does not work as an incentive system in those many cases where teachers are not given their merited salary increases as and when due after they have re-qualified.

An incentive system needs to be put in place that rewards performance as measured by what teachers know and are able to do in the classroom and one that demands a higher level of performance in the classroom as a result of having attained higher qualifications. There is not likely to be any change in teaching behavior and school performance if these issues are not addressed. This is a long term problem, but the success of the proposed recommendations in the paper will be determined by the progress made on this front.

Summary and Conclusions

The NCE was first discussed as a policy standard in the 1980's although it was not implemented until the 1990s. Fifteen years later, less than half the teachers in the primary school sector hold and NCE and many teachers in states with low education indicators have no teacher training certificate. States now have much greater control over their budgets and personnel than in the 1980s and 1990s and in addressing their own education requirements many states, especially those where the demand for teachers is high, are questioning the value of a three-year initial teacher education program.

Findings from research into teaching and learning in primary schools and the participation of staff of colleges and institutes of education in school-based action research and development programs has increased the level of awareness amongst professionals of the need for a change in the content and structure of teacher education. Several things are being recognized: the need to rethink the content and structure of pre-service and continuing education of primary school teachers based on what teachers need to be able to do in schools and the need to bring professional development programs much closer to the point of delivery that is to the school and classroom levels.

It is recommended that the curriculum of the NCE program be more flexible in structure and content and that teacher educators be much better prepared to teach adult learners and to train teachers in the pedagogies required to teacher young children in primary school classrooms. Teacher education programs need to be more focused on developing reflective practitioners and less on written examinations on subject matter. This requires better definitions of what teachers should know and be able to do and a range of performance assessments at different levels of knowledge and experience. Continuing education programs could then be structured in meaningful ways along a career path in primary education. And these would need to be linked to incentives systems that rewarded performance.

Policy Issues in Reform of Teacher Development and Professional Support

From the review of assessments of student learning, and of classroom research and development over the past five years there are five major policy issues that are confronting the federal and state policy makers as they struggle to achieve the quantitative and qualitative changes they require, especially if they are to meet EFA/MDG and UBE goals.

Primary school teacher quality and how best to get it. Primary school teacher quality needs to be defined by performance standards and benchmarks in professional development based on what they know and can do in classrooms. Teacher quality should also be measured by the match of teachers to the requirements of the school communities in which they work. For example, language competence and appreciation of the social and cultural milieu of the children they teach. This requires more flexible entry requirements but also more emphasis on building teacher quality through school-based mentoring and professional support programs rather than fixed long term study in a college of education.

Curriculum of teacher education and the structure and organization of teacher accreditation programs linked to performance benchmarks (for accreditation) and performance standards (quality assurance). The NCE curriculum is reviewed in five-year cycles. The review process is beginning now. This provides an opportunity for much wider review than has been the practice in the past. It should be possible to begin with first principles, what do we know about learning in primary schools and what do primary school teachers need to know and be able to do to meet the demands of teaching and learning. This could lead to building a framework of benchmarks as a basis for developing a modular approach to initial teacher preparation and certification. The review of the NCE curriculum for primary teacher education should also review the curriculum content and practical components of the PTTP and the Grade II certificate programs so that teachers who already have some training can gain credits for both training and experience of teaching. All primary school teachers should be trained as

grade teachers, able to teach the core subjects across the curriculum, but there will also need to build some specialization into primary teacher education. For example, primary teachers who teach in lower primary school classes need to develop skills in teaching initial literacy and numeracy through the Nigerian language. And all teacher need to understand how English is taught as a second language, but some teachers may choose to specialize in upper primary grade teaching where English is the medium of instruction. Teachers in small schools will want to increase their knowledge and understanding about managing learning in multigrade teaching situations and about building close school and community relationships.

Cost and financing of teacher education and development. Very little research has been done into the cost and financing of primary teacher education and training. This is an area that needs greater attention. The costs and benefits of different strategies for training, upgrading and continuing development of primary school teachers needs examining. The research should provide and empirical basis for options and choices for state and local governments. Currently, the cost of fulltime study for the NCE and even the part time NCE upgrading programs discriminate against teachers in poor communities.

Incentive structures, professional development and career paths in primary education. The role of the teacher unions, the employer (LGEAs/States), and the civil service need further examining. In the long term, there will need to be discussion about creating a separate teaching service that has conditions that relate specifically to teacher careers and incentive structures that reward teaching performance and professional development. A teacher management structure needs to be located in the federal structure with more responsibility for teacher careers defined at the state level and accountability for teacher performance held at local government and school levels.

Meeting the competing demands for teacher quality and teacher supply. Many states, especially but not exclusively, northern states with low education indicators are trying to expand the school system at the same time as improve the quality and outcomes of their primary schools. In these settings, the output from the secondary school system is low and the demand for secondary school graduates is high. The choices secondary school graduates make are not limited to careers in primary schools: given the poor teaching conditions of primary school, teaching is often low on a student's list of career choices. Meeting the demand for new teachers and the demand to improve the performance quality of teachers already in schools requires new thinking about who teaches and how they are trained for the job in primary schools. There are examples already in the Nigerian experience that can be built on as a modular approach to eventual certification—alternative programs to the NCE or alternative delivery of modules towards the NCE. These alternative and shorter programs could be structured as part of a modular approach if they were developed around teacher performance and competencies at different points. This would require more appropriate assessment of teacher performance based on what they do in classrooms and how they address teaching and learning problems confronted in teaching children in a variety of learning contexts.

Recommendations

There are two major over-arching recommendations arising from the discussions in this paper: (i) that a new approach be taken to teacher development that is based on greater proximity of the provision of teacher training services to the point of delivery at the school; and (ii) that greater emphasis be given to the development of teachers communication skills in the languages of instruction and in the pedagogies for developing children's language and literacy competencies. An integrated approach to implementation of these two recommendations would have the advantage of reinforcing the changes needed at the classroom and school level to improve practice, would represent a good way to improve language instruction ability, and would provide inherent incentives, while the overall incentive system is fixed. It can not solve all problems (such as poor language mastery of teachers), but it provides a good basis for most other issues presented in the paper.

Recommended steps are:

■ Focus on getting it right for primary school teacher education. Review the current teacher education curriculum specifically through the lens of what primary school teachers should know and be able to do if they are to be effective teachers and students are to learn well. Define what primary school teachers should know and be able to do. Use these professional characteristics to review the current curriculum of all initial teacher preparation programs for primary school teachers. Establish performance benchmarks so that the teacher education curriculum can be modularized and delivered through multiple modalities and over different time periods. Place much greater emphasis on the link between theory and practice and design the combination of course work and school experience so that there are greater hands on opportunities for teachers to become reflective practitioners rather than dispensers of received knowledge. Link the initial teacher preparation and the induction processes to

certification and further professional development opportunities through short courses on topics of special need, such as language and learning, language and literacy, English as a second language, how children learn mathematics and science.

■ Continue to develop school-based teacher mentoring and professional support programs. Build these experiences into career development programs and incentive systems. Encourage schools to develop school quality improvement plans that will improve teaching and learning and that demand school mentoring services. Provide proposal-based school grants to enable them to carry out their teacher development activities. Encourage LGEAs to identify and support clusters of schools that need special assistance and provide proposal based funding to LGEAs to carry out special programs (for example, in multigrade teaching in small schools, in Nigerian language and literacy in lower primary) in schools over a block period.

■ Develop programs of staff development for colleges of education that address the requirements for training primary school teachers and linking their college work to practice in primary schools. Develop their action research capacities and provide incentives to become involved in mentoring, in-service training, and teacher performance monitoring in partnerships with schools and local governments. This will enrich their own college programs, contribute to primary school development and expand knowledge of practice in different primary school contexts.

Examine the cost and financing of initial teacher education program and upgrading programs for primary school teachers. Provide policy options to states based on costs and benefits of different strategies to prepare and develop new teachers. Examine the impact of different strategies on teacher participation and provide options for financing teachers' initial preparation and their upgrading and further professional development. The budgetary implications of different strategies need to be considered: for example, if the salary and wage bill doubles because all teachers are upgrading and receiving much higher salaries, then there will be fewer resources for books and materials and other education inputs from states. Policy options and strategies need to come out of the studies of costs and financing.

APPENDIXES

Qualified Primary Teacher

Table A1. Percent Qualified (NCE and above) Primary Teachers by State, 1996 and 2003

State	10 20 30 40 50 60 70 80 90 100	2003 %NCE+
Abia		48
Adamawa		38
Akwa Ibom		62
Anambra		71
Bauchi		17
Bayelsa		36
Benue		66
Borno		31
Cross River		46
Delta		55
Ebonyi		27
Edo		60
Ekiti		70
Enugu		61
Gombe		30
Imo		69
Jigawa		23
Kaduna		40
Kano		21
Katsina	*	21
Kebbi		25
Kogi		67
Kwara		66
Lagos		70
Nasawara		39
Niger		30
Ogun		67
Ondo		56
Osun		87
Oyo		76
Plateau		43
Rivers		74
Sokoto	*	25
Taraba		31
Yobe		23
Zamfara		21
FCT Abuja		69

Sources: NPEC 1996, MOE/EDB School Census 2003 Rounded

Nationally   48

*1996, Katsina 2 percent, Sokoto 5 percent.
In 2003: 48 percent nationally have NCE+, 17 of 36 states/FCT have 50 percent or more primary teachers with NCE and above, and 13 states have 30 percent or less with NCE.

What Teachers Need to Know and Be Able To Do

Content knowledge:

♦ Understanding subject matter deeply and flexibly to help students create cognitive maps, link ideas, address misconceptions

♦ Seeing how ideas connect across fields of knowledge and to life

♦ Making ideas accessible to others, understanding the perspective of the learner

Learner knowledge:

♦ Knowledge of child and adolescent development and how to support growth in cognitive, social, physical, emotional domains to interpret learners statements and actions and to shape productive learning experiences

♦ Understanding and respect for differences linked to culture, family experience, forms of intelligence, approaches to learning, and the ability to teach in a way that contexts with students

♦ Inquiring sensitively, listening carefully, looking thoughtfully at student work, structuring situations to allow students to express themselves

Motivating students:

♦ Understanding what individual students believe about themselves, care about, and how to give them encouragement

Knowledge about learning:

♦ Deciding which type of learning is most appropriate in specific circumstances, which material to use when and for which purpose

♦ Able to use different strategies for teaching, evaluating students knowledge and assessing their learning

♦ Capacity to understand the strengths of individual students

♦ Capacity to work with disabled students

♦ Understanding of how students acquire language (the gateway to learning) to build skills and create accessible learning experiences

Knowledge about curriculum resources and technologies to:

♦ Allow students to explore ideas, acquire and synthesize information, frame and solve problems

Knowledge about collaboration:

♦ Structuring student interaction for more powerful shared learning

♦ Collaborating with other teachers

♦ Working with parents to learn more about their children and help shape supportive experiences at school and home

Capacity to reflect:

♦ Assessing own practice and its impact to refine and improve instruction

♦ Continuously evaluating students' progress to reshape lesson plans

Source: Organization for Economic Cooperation and Development, *Teachers for Tomorrow's Schools,* 2001.

Nigerian Certificate in Education—Primary Education Studies

Note: Author's clustering of subjects by theme.

The NCE requires students to pass a total of 56 credit hours of course work. The pass mark is 40 percent and above.

For those taking the Primary Education Studies (PES) major, the program has two parts:

a) A General Studies program of 14 credit hours.
b) The PES program of 36 credit hours/units minimum to graduate, of these 34 are compulsory units (listed) and 2 electives. Plus a 12-week block (one school term equivalent) of practice teaching in year 3 (6 credit hours). Micro teaching (video lab) in year 2; must pass it to be eligible for practice teaching, in year 3.

Education studies *(Credit Hours)*

◆ Philosophy of preprimary and primary education (2)
◆ Child psychology (1)
◆ Primary school administration and supervision (1) *Total* *(4)*

Language

◆ Principles of language study (2)
◆ Language of the immediate environment (1)
◆ English curriculum and methods (2)
◆ Primary English methods (2)
◆ Mechanics and methods of teaching reading (2) *Total* *(9)*

Mathematics

- Primary mathematics curriculum and methods   (2)
- Space, shapes and measurement   (2)
- Introduction to algebra and statistics   (2)   *Total*   *(6)*

Social studies

- Introduction to social studies   (1)
- Primary/Social Studies curriculum and method   (2)
- Principles of family living   (1)
- Principles of meal planning   (1)   *Total*   *(5)*

Science

- Primary science curriculum and methods   (2)   *Total*   *(2)*

Expressive Arts

- Drawing, culture and creative arts   (1)
- Music and Dance   (2)   *Total*   *(3)*

Physical education and health   *Total*   *(2)*

Primary School Religious and Moral Instruction   (1)   *Total*   *(1)*

Personal skills

- Development of writing skills   (2)   *Total*   *(2)*

Making a Real Difference to Initial Preparation of Teachers

◆ *More strategic use could be made of untrained teachers* supported by orientation programmes and school-based apprenticeships like relationships (on-the-job-training). If this process was managed effectively it could become a step on a pathway to initial qualification. The experience of working as a teaching assistant would discourage some, reinforce the aspiration of others, and allow the unsuitable to be selected out.

◆ *Initial training could be organized in a more modularized way* to allow training to be acquired as and when needed. Investment in skill and competency would be cumulative and could take place through a variety of routes (full-time, part-time, day release, residential, distance etc) and in a variety of locations (in school, at teacher centers, in colleges and universities). It would have to be linked to a progressive career structure that regulated promotion to different grades to experience, qualification level and competence. The important difference is that it would not be a single-shot qualification process by a continuous pathway leading to higher levels of competence.

◆ *A staircase of training linked to posts of responsibility and rewards* offers the opportunity to embed the training process more firmly in the school and the learning needs of its pupils. So also might the modularization of the training curriculum. It would make it possible for more training to take place in closer proximity to professional practice both in space and time. It might allow possibilities for schools (and colleges) to acquire some of the attributes of learning institutions. It could obviate the need for special induction and support of newly qualified teachers if a seamless web of continuing professional development began to develop which could include the induction of newly qualified teachers.

◆ *Teacher educators at all levels, whether school or college based, need to have induction and continuing professional development.* This should ensure that they are aware of recent developments, can judge whether these should be incorporated into training, have perspectives that run beyond their direct experience, and have a rich range of material to draw on to support and stimulate trainee teachers.

◆ *Colleges could then move* away from being monotechnic institutions focused purely on residential long course qualifications, *towards becoming dynamically integrated nodes of innovation, professional development activity, and advisory support*. They could be challenged locally and nationally to make a read difference to learning in schools and the development of the human potential of the populations they serve.

Source: Lewin and Stuart (2003), p. xxxi.

The School-based Teacher Support System as a Model to Improve Classroom Teaching and Learning

The research and development program aimed to improve language, literacy and learning of children in lower primary classes (Nigerian languages), upper primary classes (transition to English medium) and in multigrade teaching situations of small, rural schools. This was to be achieved through school-based teacher mentoring and professional support activities. The characteristics of effective in-service training programs (Craig et al) are illustrated with examples from the set of action research activities over the three year period.

Characteristic	Example from practice
1. Focus on concrete and specific training for instructional and management practice.	♦ The programs focused on language, literacy and learning. This was the core across three types of learning situations. ♦ In primary classes 1–3 the focus was on the use of Nigerian language as the language of initial literacy (writing, reading and number) and of learning across the curriculum, with introduction of oral English as a subject. ♦ In primary classes 4–6, the focus was on the introduction and use of English increasingly as the medium of instruction and the language of literacy and learning. ♦ In small rural schools, the main focus was on school organization, classroom management in multigrade teaching situations and the uses of language(s) for literacy development and learning.
2. Programs are appropriate to the current needs of the teacher.	♦ The facilitators/mentors began with teaching and learning problems identified by teachers during school and classroom visits. Development of lesson plans and instructional materials was carried out at the school by groups of teachers working together with or without the aid of the facilitator, and experiences were shared with teachers from other schools in the school cluster. The emphasis was on use of local and teacher made resources.
3. Involve teachers and other staff in the planning and implementation of both short and long term activities.	♦ Before beginning the program, the facilitators were introduced to participatory approaches to teacher mentoring. School supervisors, school principals, teachers and school communities were involved in the planning and implementation of the programs. ♦ For example, teachers in the Yoruba language program worked with a linguist to translate the curriculum modules from English into Yoruba. Lesson plans were prepared in Yoruba and the LGEA provided science textbooks in Yoruba (that had been supplied under an earlier project but had been sitting in the storerooms).
4. Include small group workshops, peer observations and feedback, coaching/ mentoring and demonstrations.	♦ The model of school-based teacher mentoring was based on (a) Teacher mentoring in classroom situations, demonstrations, peer reviews and feed back sessions, (b) Groups of teachers in the school working together to plan lessons and instructional materials, (c) Shared experiences, development of alternative ideas at workshops for teachers from a cluster of schools, demonstrations, peer reviews.
5. Ensure implementation in the classroom of the acquired learning.	Examples: ♦ Nigerian language instruction improved—lesson plans were prepared in the local language; facilitators, supervisors, headteachers and teachers found as many books and materials as they could in the local language; parents were involved in the planning and become supportive as a result of changes they saw in their children's understanding, their abilities to write and read and to participate in learning processes.

Characteristic	Example from Practice
6. Provide continuous guidance and support (head teacher, peers and other teachers).	♦ The program was based on a three-year strategy to start small and to gradually build a 'critical mass' of teachers, school principals, school supervisors and facilitators. For example, in the Yoruba language program all schools in the LGEA were included in the program by the end of the three-year program.
	♦ The system included an intensive period of mentoring over one term in a cluster of five schools (with its associated intra and inter school meetings); each term another cluster of schools benefited from intensive mentoring and associated activities. Facilitators continued to support earlier groups as requested by school supervisors and headteachers.
	♦ Facilitators (COE staff and school supervisors and other reps of national teacher education institutions) participated in technical workshops aimed at sharing experiences and adding to their knowledge of (a) literacy development, (b) early literacy development in Nigerian languages and (c) multigrade teaching in small rural schools).
7. Have the support and participation of the head teachers and other school leaders.	♦ The school principals and the local government education teams elected to participate in the program and gained the support of the parents and communities for the school development programs. All schools elected to join, all LGEAs elected to participate.
8. Enable participation through release time.	♦ Lead facilitators are staff from colleges of education who supported teachers in classrooms, and through cluster meetings.
9. Provide regular meetings for problem solving, often within a school cluster.	♦ Teachers within a school held regular weekly meetings to jointly prepare lesson plans and instructional materials.
	♦ Teachers from all the schools in the cluster had monthly meetings to share experiences and to develop ideas about teaching and learning.
10. Fit within the context of the local community and school culture.	♦ Teachers developed instructional materials from locally available resources as much as possible, and aimed to use local examples in lessons.
	♦ The emphasis was on bilingualism and the development of language for literacy and learning.
11. Fit within the broad, long-term professional development and school improvement program.	♦ School improvement programs gave priority to developing language for literacy and learning.
	♦ Teacher mentoring and classroom support, together with sharing experiences at school and cluster meetings, are contributing to teacher's own professional development.

The School-based Teacher Professional Support Program

Research and Development to Address Issues of Learning and Teaching in Primary Schools

Since 2000, several national and state projects[12] have invested in school infrastructure; and other projects have focused on improving teaching and learning in different school contexts across Nigeria. UBEC's school-based teacher development program was one of the largest of the projects focused on teaching and learning. This was a three-year program of action research and development to address issues of poor teaching and learning identified in the research findings and learning assessments that are discussed in previous chapters.

Research and Development Program

The research and development program was based on three broad areas of inquiry into:

■ *Selecting appropriate approaches to teacher support.* How can we best help teachers to work effectively in the heavily constrained environment in which they teach? And what approaches to teacher support are likely to have the greatest impact in the classroom?

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12. FGN, state government and aid-supported projects included a large scale community self-help school rehabilitation program, provision of school library books (FGN/World Bank), new classrooms and school construction (FGN Education Tax Fund), inservice teacher training and school development in selected states (UNICEF, USAID, DfID); a child friendly school initiative (UNICEF), use of interactive radio instruction (USAID), school supervision and school and community management (DfID) and programs to support girls education and children in islamyya schools (UNICEF and USAID) and children in nomadic communities (DfID, FGN/WB).

- ▪ *Improving teaching and learning in different kinds of teaching learning contexts.* What pedagogical skills and understandings do teachers have already and what do they need to know and be able to do:
  - ● Develop language and introduce literacy in lower primary school classrooms through the medium of a Nigerian language?
  - ● Develop learners skills in literacy and language across the curriculum through the medium of English as a second language?
  - ● Manage and organize teaching and learning in small rural schools that have multigrade teaching situations?
- ▪ Identifying institutional arrangements for sustainable school and teacher support systems:
  - ● What is the role of the head teacher, the school supervisor, the Local Government Education Authority (LGEA) and the institutes and colleges of education in providing teacher professional support, and what are the constraints?
  - ● How would school-based approaches and pedagogical knowledge about language, literacy and learning be built into a framework of continuing professional development of primary school teachers?

In the past, teacher in-service training was usually a cascade model from federal, state and local government to schools—a system that "filtered out" any close relationship of training content to actual classroom problem-solving. Few primary school teachers have participated in any in-service training since they entered teaching and for most teachers, the only professional development they have had in the past ten years is through the upgrading program for the NCE that was set in the 1990s as the national standard for new teachers.

Based on best practices internationally (see Box 4 in Chapter 2; Craig and others 1998), UBEC chose to systematically try out a school-based mentoring approach that would honor teachers' participation in the renewal process, involve head teachers and schools, the local government and supervisors as well as institutes and colleges of education in the state.

The School-based Teacher Support and Professional Development Model

The school-based teacher mentoring and professional support program contracted a team of 'facilitators/mentors' from institutes and colleges of education and education faculty at universities within the state who would work with clusters of schools in selected LGEAs. The facilitators worked with school supervisors and school principals to set up programs of intensive classroom and school-based support for teachers from a cluster of nearby schools. Each term the team of facilitators moved to another cluster of schools in the LGEA for similar teacher mentoring whilst maintaining some support for the school supervisors and schools in prior programs. All schools continued the program throughout a full academic year. Each of the local governments in the program were selected on the basis of their interest in developing one of the three major themes—Nigerian language and literacy, English across the curriculum or teaching and learning in small rural schools with multigrade teaching. At a later stage in the program all schools focused on language and literacy development across all grade levels. The aim was to build a critical mass of teachers, school principals and supervisors in an LGEA who were exposed to renewed knowledge and skills to

improve students learning, especially in language and literacy and who would, hopefully, sustain the efforts.

The Action Research and Development Approach

The action research methodology used in the program involved teachers trying out learning activities in classrooms with the facilitators, followed by analysis of the teaching and learning, feedback discussions amongst teachers and preparation of lessons and materials. During the period of intensive classroom support for teachers and head teachers of the school cluster met weekly or fortnightly in inter-school meetings with facilitators and school supervisors. During such meetings, participants shared ideas and experiences, explored how best to achieve learning in students and found solutions to individual or common problems, discovering for themselves in the process what worked and what was not appropriate in their resource constrained environments.

The Research and Development Strategy

The purpose of the three-strategy of research and development was to investigate the feasibility of a school-based teacher professional support system and to find pedagogical methods and techniques that would be appropriate to teacher and student needs in the current classroom context. The idea was to start small and to expand when appropriate so that institutional implications could be explored as well as issues of teaching and learning for literacy development. The research and development strategy described below is summarized in Appendix Table F1.

The *pilot phase* was carried out in seven clusters of five schools, one cluster in one LGEA in each of seven states with further expansion to be dependent on findings of an independent evaluation. It was a trial period for teachers, schools, local governments and the colleges who provided facilitators. The emphasis was on establishing participatory and collaborative methods of working in schools to build teachers confidence and develop rapport between teachers and students and the mentors. It aimed to develop "reflective practice" in teachers, and certainly of the facilitators, in order to solve classroom teaching problems related to language use and development of literacy.

The program was *expanded* over a two-year period to additional sites in three more states on demand basis (two states were included in the small schools program, one state was included in the program for English language and literacy at grades 4 to 6). It continued to focus on language use and literacy in lower and upper primary classrooms and in the multigrade teaching situations of small rural schools.

At this stage, a staff development program for facilitators (from institutes and colleges of education as well as the school supervisors) was included to build up their professional competencies in language and literacy across the curriculum. There was a series of literacy workshops accompanied by application of methods and techniques at the facilitators' teacher-mentoring sites. The Reading Association of Nigeria in partnership with the International Reading Association (IRA/RAN) provided technical assistance to the staff development program and with the facilitators and teachers prepared handbooks and teachers guides on methods and techniques for literacy development that had been tested in classrooms.

Table F1. Research and Development Strategy for School-based Teacher Development

Pilot Phase 2001	Development Phase 2002–2004	Institutional Phase 2005
• 7 states* × 1 LGEA each • × 1 cluster × 5 schools each • × 1 IOE or COE each • × 1 school term each *Three states Nigerian lang. grades 1–3, two states ESL grades 4–6, two states small schools multigrade teaching. Program of weekly support to teachers from facilitators: – classroom mentoring – in school teacher meetings to share, plan and develop lessons – interschool/cluster workshops to share ideas and develop materials	• 7+3 states*(total LGEAs ×) • 1 new cluster × 5 schools each term for intensive mentoring support, with follow up support • × 1 IOE/COE each state *Three states Nigerian lang. grades 1–3, three states ESL grades 4–6, and four states small schools multi-grade teaching. *Replication:* • 19 states, × 1 LGEA each • LGEA 'Focus Schools' and cluster (5 schools) • × 1 IOE/COE each state All states, Nigerian language and literacy, grades 1–3 to be supported by class library boxes, supplementary readers. *Staff development programs for mentors (teacher educators and supervisors):* • Language(s) and literacy grades 1–6, • Nigerian language and literacy grades 1–3, and • Small schools, multi-grade teaching.	• 16 states (UBE Project) × 6 LGEAs each LGEAs to select from the language(s) and literacy, and small schools multi-grade teaching modules. Link to: • School quality improvement planning and proposal based funding. • LGEA proposal based funding for support to clusters of schools. • State based NTI, package of mentoring materials to support the school-based and cluster activities. • Content and approach to be included in COE/NTI upgrading programs for primary school teachers. *Staff development programs for institutes and colleges of education on issues of language, literacy, and learning in primary school classrooms.*

A special program of staff development was carried out for facilitators working with small rural schools on multigrade teaching. This included two workshops in Nigeria and participation in international video conferencing and an international workshop in Uganda supported by the World Bank Institute.

Establishing *institutional arrangements for sustainability* was to be the third phase of the research and development program. This was intended to focus on issues of sustainability of school-based approaches and the institutional arrangements within states and LGEAs for implementing teacher support programs that would lead to improved learning results.

It was also planned that this phase would develop distance and open learning materials to support a wider dissemination of ideas. These materials would build on handbooks developed by teachers and mentors during the action research. Topics would include information about the school-based approach as well as pedagogical ideas for use of Nigerian languages in literacy development, and literacy through English as a second language; and manuals and ideas books for management of learning in small schools with multigrade teaching.

It was expected that at this stage, there would be additional staff development programs for facilitators from colleges of education who would provide mentoring support.

It was planned that the school-based approach and the three content areas would be included in the budget and work plans of 16 states (6 LGEAs each) that had additional resources for basic education from an IDA Credit.

A *replication* of the model was carried out in clusters of schools around the so-named "focus schools" of a UBEC managed primary education project that covered all states in the federation. The original concept of a "focus school" was a school that embodied what a "good school" would look like in terms of conditions for learning (well maintained buildings with adequate furniture and supplies of teaching materials) and thereby become a model for other schools to follow. The focus schools had participated in a large scale exercise to provide classroom library boxes with supplementary materials selected by the class teachers. It seemed a good opportunity to match the school-based teacher support program to these schools where it was expected that there would be sufficient reading materials available to support the literacy development programs in grades 1 to 3. Unfortunately, the classroom library books did not arrive in the schools until after the research and development program ended. So, the teacher mentoring and school cluster activities continued using whatever books were available.

The school-based research and development program was innovative in several ways in the Nigerian context:

- It focused on literacy development in primary schools across a range of contexts: (i) initial literacy and numeracy skills through the medium of a Nigerian language (Hausa, Igbo or Yoruba[13]) in primary grades 1 to 3; (ii) English language and literacy skills across the curriculum in grades 4 to 6 and (iii) literacy skills in multigrade teaching situations in small rural schools. The emphasis was on the way language, literacy and school learning are interlinked and how development of children's skills in these areas needs to reflect their own cultural and linguistic environment.
- It tried out an alternative approach to in service teacher training, to give teachers an opportunity to have a voice in their own professional development and to relate the training content to real-time classroom teaching problems.
- It supported schools and teachers directly in their classrooms with intensive periods of "mentoring" and discussion in teacher meetings within the school and across a cluster of schools to develop "reflective practices" and reflective practitioners (teachers, head teachers, school supervisors and facilitators).
- Action research as a qualitative research methodology was new in the Nigerian context. It was the first time it had been used in primary education, and on such a large scale.

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13. Ethnologue, Vol. 1 Languages of the World (2000) lists 505 living languages in Nigeria, of which 13 have more than 1 million speakers and 3 (Hausa, Igbo and Yoruba) have more than 18 million speakers each. In the past, the National Education and Research Council (responsible for school curriculum) prepared syllabus texts in 9 languages; the National Commission for Nomadic Education produced textbooks in Fulfulde for nomadic pastoralists and in Pidgin for migrant fisherman; and the FGN/World Bank Primary Education Project provided textbooks for grades 1–3 core subjects in three languages.

Beneficiaries of the Research and Development Program

By the end of the research and development program in 2004, over 3,000 primary school teachers in 558 primary schools across 23 states had been direct beneficiaries of at least one term of intensive school support. The schools as a whole benefited from the experiences and many other teachers took part in the school meetings and cluster workshops. Overall 34 local governments participated in the program with at least two school supervisors from each LGEA contributing regularly to the school and cluster activities. In addition, the teacher educators/facilitators and school supervisors benefited from staff development workshops on language and literacy development and on multigrade teaching. The program had considerable impact on 1,600 or more classrooms (approximately 67,000 learners). Numbers of states, LGEAs, schools, teachers and student beneficiaries are in Appendix Table F2.

Results and Lessons from the Experience of the School-based Teacher Professional Support Program

An effective model for a school-based teacher professional development system was developed. The system actively involved all key groups responsible for school quality in a local government. It involved teachers, school principals, parents, school supervisors, local government education teams and staff of colleges and institutes of education from within the state. It put into practice a cycle of activities based on:

- reflection (on classroom practice with mentors);
- action (peer teaching lessons with mentors);
- reflection and development (of activities and materials with mentors and other teachers at school); and
- action (developing methods, materials and lesson plans with other teachers at school cluster workshops; and then implementing new ideas).

Facilitators/mentors organized a year long program of activities, with intensive support during one term in a cluster of schools and then repeating the cycle of activities each term in a new cluster of schools. Facilitators provided the technical support to schools and transferred knowledge and skills to school supervisors and teachers. There was also additional technical support for the facilitators themselves through staff development programs in key areas of language, literacy and learning in primary schools.

As measured by the characteristics of effective in service training (Craig and others 1998), the UBEC school-based teacher development model reflects many of the attributes of an effective in service training approach and is one that can bring about changes in classrooms. (Full details of the analysis are in Appendix E.)

The program raised questions about incentives and rewards for teachers who participated in the intensive mentoring program. The mentoring program required considerable commitment of teachers and school principals. The rewards to teachers were intrinsic rather than extrinsic: teachers found they enjoyed teaching more, felt they were better able to help children learn and felt happier in the job as they gained in confidence from sharing ideas and learning from other teachers. But, there were no direct or indirect financial

Table F2. School-based Teacher Development and Professional Support Systems					
State	**T/L theme**	**LGEA**	**Schools**	**Teachers**	**Enrolment/Classes**
A/R&D					
Kano	L1 Hausa	3	20	150	Grades 1–3
Abia	L1 Igbo	2	30	230	"
Osun	L1 Yoruba	1	29	169	"
L1 Subtotal		*6*	*79*	*549*	
Imo	ESL	3	30	180	Grades 4–6
Kaduna	ESL	1	29	147	"
Enugu	ESL	1	10	30	
ESL Subtotal		*5*	*69*	*357*	
Ondo	Multigrade	2	25	37	Grades 1–6
Plateau	Multigrade	1	25	35	"
Taraba	Multigrade	1	10	30 est	"
Rivers	Multigrade	1	10	30 est	"
Multigrade Subtotal		*5*	*70*	*132*	
	Subtotal	***16***	***218***	***1038***	
Replication Focus Schools					
Abia*	Nig.Lang.Lit	1/3 clusters	15		Grades 1–3
Adamawa	"	1/4	20		"
Bayelsa	"	1/4	21		"
Benue	"	1/2	10		"
Borno	"	1/3	15		"
Delta	"	1/2	10		"
Ebonyi	"	1/4	20		"
Ekiti	"	1/4	20		"
Imo*	"	1/2	10		"
Jigawa	"	1/2	10		"
Kaduna*	"	1/4	20		"
Katsina	"	1/4	20		"
Lagos	"	1/3	15		"
Niger	"	1/3	15		"
Oyo	"	1/4	20		"
Plateau*	"	1/3	15		"
Rivers*	"	1/5	24		"
Sokoto	"	n/a	n/a		"
Taraba*	"	n/a	n/a		"
*These states were R&D sites, altho' diff LGEAs	***Subtotal***	***19***	***340*** *(incl. Sokoto and Taraba)*	***2040***	
	Total	***35***	***558***	***3078***	*Est. 67,000*

or career rewards. Currently there is no system for giving credit to teachers for participation in this kind of professional development program. The mentoring program could be considered for inclusion as a module in the NCE upgrading course, for example.

The program was funded largely from a FGN/World Bank project that closed in 2004, but state governments are now receiving matching grants from the federal government to support the implementation of UBE policies. A 15 percent share of the UBE matching grant to states is expected to be allocated to teacher development. This provides opportunities to states to establish their own models of school-based teacher support following the ones described here. In many states this is beginning to happen, especially amongst the 17 states that have IDA loans to support the implementation of UBE.

Increased awareness in the teacher education community of the relationship between languages of instruction, literacy development and school learning. Over the years, content and structure of primary school curriculum, textbooks and teacher training programs have lost sight of national education policies regarding languages of instruction and learning. Curriculum documents are scarce and so are teachers' guides. The supply of textbooks in Nigerian languages and in English is woefully inadequate for implementation of the primary school curriculum. In addition, primary school teachers are not trained adequately in methods of teaching writing and reading to beginners either in a Nigerian language or in English. These factors made the mentoring activities and the cluster workshops an important source of teaching methods, materials and lesson plans.

The facilitators and teachers spent a great deal of effort in finding, copying, and developing materials for use in classrooms. Special workshops were held for facilitators themselves in methods of teaching reading and developing literacy skills. These workshops and a program of follow up activities in schools provided the basis for a facilitator's manual and a handbook of ideas for teachers on literacy development that will be printed for wider distribution.

The progress made in the Yoruba language and literacy program had a positive impact on parents understanding of the relationship of language to learning, and because of efforts from the local government, teachers had considerable material support. The curriculum guides for grades 1 to 3 were translated into Yoruba and distributed to all teachers, textbooks in Yoruba language were collected from a number of sources (including stacks of books that were in school and office storerooms) and local booksellers were encouraged to stock Yoruba language texts. The school mentoring program and language program was extended to the lower grades of all primary schools in the LGEA over a two year period. Students in grade 3 were tested in Yoruba language and in English and showed improvement over results of students of the previous year. Even skeptical parents began to subscribe to the Yoruba medium for lower classes when they saw the results in classrooms and were satisfied that their children were still learning English.

The schools in LGEAs trying Hausa medium instruction were handicapped by the extremely overcrowded classrooms in which they were working and teachers would have benefited much more if there had been Hausa textbooks available to the students. Although the teachers and students were all comfortable using Hausa for teaching and learning there was practically no text material for them to read! The teams in the Igbo speaking communities had similar problems. Even though the facilitator teams were from the National Institute of Nigerian Languages they were not able to mobilize the same level of support in the LGEA as the Yoruba language facilitator teams.

Field reports from all the facilitating teams commented on teachers' low proficiency in their own language and in English and its use as the tools for learning. This has serious implications for teacher education and teacher development programs. Upgrading teachers' language and communication skills need to form a much greater part of pre-service and upgrading teacher education programs.

Curriculum guides, textbooks and teachers guides and teacher education curriculum should give a much higher priority to structured uses of language across the curriculum as well as the structured approaches to literacy development throughout the primary school.

Language and literacy are at the core of school learning and are essential for students to become independent learners. Primary school teachers need to be fluent in both the Nigerian and English languages, be able to teach languages effectively and teach students to read and write well. And importantly, they need appropriate "tools of the trade"—books and teaching guides and student textbooks in appropriate languages and reading levels.

Increased understanding of issues of teaching and learning in small rural schools with multigrade teaching. In rural areas, with low population density, the number of students to be enrolled across primary grades 1 to 6 will be low in number and likely to remain so. These small schools serve areas that are thinly populated; and in remote rural areas. They also help to create education opportunities for girls and boys by bringing schools closer to home and to meet the needs of children in nomadic communities.

In every state in Nigeria there are small schools with fewer than 150 students that require a multigrade teaching approach (see Appendix Table F3). For example, Niger has

Sample 16 UBE Project States	Total Number of Primary Schools	Number of Schools with Enrolment 150 or Less	Small Schools as % of Total Primary Schools
Bayelsa	519	18	3.5
Benue	2574	55	2
Borno	1337	238	18
Ekiti	856	257	30
Enugu	1113	353	32
Imo	1446	387	27
Jigawa	1603	121	7.5
Kaduna	3377	1103	34
Katsina	1988	150	7
Lagos	1782	626	35
Niger	2575	1428	55
Oyo	2228	302	14
Plateau	1727	525	30
Rivers	1044	60	6
Taraba	1596	283	18
In 16 state sample, total	25765	5906	23

Table F3. Small Schools in the 16 UBE Project States

Source: Data from 16 UBE Project states, based on FMOE/EDB School Census 2003.

1428 small schools (55 percent of the total primary schools in the state) and Kaduna has 1103 small schools (34 percent of its primary schools). Even Lagos state has 626 small schools (35 percent of the schools it manages). Teacher ability to use a variety of instructional methods and to manage group learning is at the core of multi-grade teaching in these types of schools. This implies that teachers understand the need for careful preparation of lessons and schedules and that teachers are able to organize teaching and learning around a variety of learning modes such as group learning, individual work, peer-tutoring and class work.

Critical to success in teaching and learning in multigrade schools, as in all other types of schools, is the availability of books, learning material, classroom facilities, and teacher support services.

Small schools are a crucial part of the drive to attain UBE goals and for this reason the UBEC included small schools in the research and development program. The objective was to develop effective strategies for organizing and managing teaching and learning in multigrade teaching situations. Program content focused on language and literacy development and additionally it set out to help teachers to:

■ organize and manage learning groups of different ages and learning stages,
■ plan lessons and timetables that balance teacher led instruction with one group while other groups worked independently or with a monitor;
■ prepare and use teacher made materials to support the textbook;
■ use the chalkboard and its space effectively, and
■ monitor students learning during lessons.

UBEC found that the concept of multigrade teaching or management of learning in small schools was poorly understood by teachers, parents, supervisors. Even the facilitators themselves were learning-on-the-job.

The experiences of facilitators and schools during the pilot phase highlighted the need for staff development workshops on small schools management. Exposure to international experiences helped them to develop implementation strategies that would suit the small rural schools in which they were working. Participation in an international video conference and workshops and pull down information from the internet added to the facilitators' experience. This, in turn, led to better results in schools. Facilitators learnt to enlist parent and community member support to provide classroom furniture and to work with teachers and parents to convince them that classroom organization might look different, but that children would spend more time learning as a result.

As the baseline research reports noted: "The teachers in the small rural schools we worked in saw themselves as unfortunate people in a bad situation that they could do nothing about. This robbed them of enthusiasm and commitment to the pupils and the teaching-learning process." Surveys of teachers at the end of their participation in the mentoring program showed some improvement in teaching and learning processes through new methods of teaching reading and writing, better class management and seating arrangements and improved lesson planning that attempted to address the needs of students in each grade level.

However, results of the small schools program show that a lot more developmental work is needed to help teachers and students in these contexts. Small schools, even more

so than regular schools, need a good ratio of textbooks to students. They also need classroom and furniture designs that allow flexibility to group students in the same room, and textbooks and curriculum materials that are structured in module fashion so that students can work as a group or work independently.

Those who train teachers for small schools need far greater understanding of needs of small schools and multigrade teaching. Whilst some aspects, such as working with groups and organizing learning to match student levels, should be included in training programs for all teachers, most teacher development for multigrade teaching would happen on-the-job in small schools.

Findings and Recommendations

Four major recommendations for primary school teacher development came from the three-year program of school-based teacher support:

- ■ Teacher professional development programs should focus on developing teachers pedagogical skills for teaching languages, introducing literacy and developing children's learning skills. This means teachers need to know how to teach through the medium of the main community language, in bilingual contexts as well as know how to use appropriate methods of teaching English to speakers of other languages. In addition, because of the large number of small schools, especially in rural communities, teachers should know how to organize and manage learning multigrade teaching contexts.
- ■ Teachers and school principals are critical partners to school quality improvement. And, to this end, professional support should be focused on the needs of teachers in their own schools and classrooms. To be effective, this professional support requires a partnership of teachers, head teachers, communities and supervisors.
- ■ Staff in colleges of education needs professional support and professional development programs that enable them to train primary school teachers for the kind of teaching situations they will find themselves in.
- ■ There is need for further classroom research and study to better understand the wide range of teaching and learning contexts in Nigeria and the implications for teacher development, curriculum content and textbook design.

In six states, 30 percent or higher of all primary schools are small schools. In Taraba, for example, the number of small schools would include 87 schools in nomadic (settled and pastoral) communities across the 12 Taraba local government authorities providing primary education for 11,000 students and using the two majority languages: Hausa and Fulfulde.

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Language, Literacy, and Learning in Primary Schools: Implications for Teacher Development Programs in Nigeria is part of the World Bank Working Paper series. These papers are published to communicate the results of the Bank's ongoing research and to stimulate public discussion.

This paper is a synthesis of the findings arising from four years of policy research and development in Nigeria's primary schools that focused on the gap between what teachers should know and be able to do, and the realities of teaching and learning in classrooms. It begins by critically examining the outcomes of primary schooling as measured by learning achievement results from national assessments, and by identifying some core learning problems for Nigerian primary school children. It reviews the findings from recent research reports that studied teaching and learning processes in primary school classrooms, and it identifies the pedagogical issues in primary classrooms that contribute to poor learning achievements. This report describes a research and development program that set out to improve teaching and learning in core learning skill areas of the curriculum.

This study identifies priority areas for teachers' professional development. It suggests a policy framework for the continuing professional development of primary school teachers, including the initial preparation of teachers and their induction into teaching. It proposes medium and long-term strategies to bring about the desired changes in teaching and learning through school-based approaches to teacher development.

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