

PRIMARY SCHOOL TEXTBOOKS IN TANZANIA

An Evaluation of their Quality



Department of Education
University of Dar es Salaam

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PRIMARY SCHOOL TEXTBOOKS IN TANZANIA
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by

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Preface

Well aware of the importance of education materials in the learning process, the Swedish International Development Authority (SIDA) supports the production of books and learning materials in a number of third world countries.

In Tanzania, SIDA has cooperated with the Ministry of Education since more than a decade to produce and distribute textbooks to primary school students. Now time has come to ask how the students and teachers conceive their textbooks.

In early 1987 the Department of Education of the University of Dar-es-Salaam undertook a study on the quality of primary school textbooks on the request of SIDA. We believe that this publication, which is a condensed version of the research report, could be of interest to everyone interested in primary education.

Stockholm, October 1987

Lennart Wohlgemuth
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FOREWORD

Books are an important medium, not only for effective teacher instruction but also for efficient pupil learning as well as for an interesting, lasting and hence genuinely educative interaction between teacher, learner and subject-matter. Books - in their printed word - are reckoned not merely as a faithful partner in the learning process and in the accumulation of knowledge for the individual, but, and importantly, they can be a dependable master in providing a torchlight into seams and fathoms of a yet undiscovered ocean of information and world secrets. As one educator, Whitney Griswold, subtly put it,

Books won't stay banned. They won't burn. Ideas won't go to jail. In the long run of history, the censor and the inquisitor have always lost. The only sure weapon against bad ideas is better ideas.

A good book, or a good idea, is one that is well-written, well-researched or well-formulated and, as such, is a fountain of more effective learning and, indeed a spring-board to more information and a challenge to the search for more ideas. A good book should inform the learner, and not misinform or bore him; it should lead and motivate the learner towards higher levels of understanding and not mislead or demotivate him; it should educate the learner through provision of relevant and exemplary cases, and not miseducate him or leave him intellectually stunted.

These statements above serve to give the whole rationale for the exercise that was recently conducted (in February 1987) in evaluating the textbooks written for primary schools in Tanzania, especially in view of the concern to provide basic education within the context of the philosophy and goals of universal primary education (UPE). Several pedagogical questions that may well reach into epistemological issues as far as the UPE programme in Tanzania is concerned are: To what extent have teaching-learning materials been developed to meet the policy of primary education in this country? How adequate and satisfactory has the task been? Have the textbooks prepared in the process responded to the quality criteria necessary for providing or enhancing valid knowledge, efficient and effective learning and a lasting educational impact expected of the redefined primary education cycle? What evidence is there that the textbooks set will make a critical contribution to the whole classroom interaction process? These are some of the questions that have been on the collective mind of the Ministry of Education, educationists in the country as well as educational partners and donors of educational development assistance outside the country.

While the abstract will give a summary of what the research project was about and a selection of the key findings and recommendations, the entire report that follows will give the details and the necessary pointers.

The Department of Education would like to express its appreciation to the Ministry of Education and its Directorate of Primary Education for the concern about teaching and learning standards appropriate for a primary education cycle reconceived to provide basic education within the framework of the UPE ideal. The Department also expresses its gratitude to the Swedish International Development Authority (SIDA) not only for the financial assistance with this research project but also for its interest in the whole question of the education delivery system and internal efficiency for an effective educational outcome.

Members of the research team, specifically mentioned in appropriate places in this report, did conduct the research with the necessary caution, tact and enthusiasm, for which we thank them. Lastly, we appreciate the cooperation, friendship and expedition shown by Mr Bo Sedin, SIDA consultant, whose interest in the project and related concerns was well beyond doubt.

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ABSTRACT

This study sought to gauge the quality of primary school textbooks with their corresponding teachers' guides for geography, science, mathematics, English and Kiswahili. The study looked into the question of book availability as well in so far as it affected quality. The books to be evaluated were those which came out to cater for the national programme of Universal Primary Education (UPE) in Tanzania and with the support in paper donations to the Ministry of Education provided by the Swedish International Development Authority (SIDA).

Quality was conceptualized in terms of the ability of the textbook and teachers' guide to reflect the specific subject syllabus requirements and, therefore, the general as well as subject-specific objectives of primary education; their power to organize and explain or elucidate subject-specific knowledge, skills and values and to effectively communicate them through the medium of language, examples, pictures, diagrams and other illustrations appropriate to the varied learners' experiential and educational backgrounds; and their utility against the needs of book-users in the primary school environment.

The purpose of the study was therefore to put together the views of experts in the various subjects and the views of the book-users in rural and urban schools concerning the quality of the UPE textbooks and teachers' guides under evaluation. On the basis of these views recommendations were to be made.

The methodology of the study involved the following: One, a systematic content analysis of the textbook in relation to the syllabus and the teacher's guide. Two, soliciting views of headteachers, subject teachers and pupils through the use of questionnaires-cum-interviews and classroom observations. Three, testing pupils to determine their familiarity with and understanding of the textbook language, concepts and skills. The sample consisted of 32 rural and urban primary schools from Morogoro and Iringa regions.

The following factors in the field affected the assessment of the quality of the books under evaluation. One, the short time during which some of the books had been in use and the utter non-availability of several of the other titles officially recorded or expected to be in the schools. Two, maldistribution of the books among schools so that one found schools having single pupils' textbooks without accompanying teacher's guide or sometimes even syllabi. Three, lack of time for researchers to observe teachers and pupils while using the textbooks in class.

In the light of the textbook quality criteria set out initially and the limiting factors just mentioned the following are the main findings or, better, pointers of the study.

1) According to both researchers and book-users in the field, the textbook-syllabus match quality was high for all the five subjects. However, according to the researchers, textbook tended

occasionally to follow too slavishly or somewhat mechanically the syllabus at the expense of spontaneous development of themes or topics in both geography and science.

2) Few teachers, and even fewer pupils, had sufficient or long enough interaction with the new books. These, together with the researchers, felt that the content quality was high for all three geography textbooks, for only one of the three science textbooks, for all four mathematics textbooks, for all English textbooks and for three out of the five Kiswahili books under evaluation.

3) According to both researchers and book-users in the field, the quality of pictures, illustrations, diagrams and maps was fairly low in geography and Kiswahili but fairly high in science, mathematics and English.

4) It was the view of researchers that the exercises in the textbooks were not demanding enough in the majority of cases. In mathematics, where they form the very substance of the textbook and in science, they lacked adequate introductory background or instructions for pupils to be able to do them on their own. Occasionally, and here teachers also concurred, their level of difficulty was beyond the coverage of the relevant part of the textbook content.

5) The language level in all textbooks but Kiswahili ones was appropriate to their respective grade levels although the addition of a glossary was deemed by both teachers and researchers to be useful in view of the diversity of geographic-cultural backgrounds of the learners for which they were intended.

6) Incompleteness of the textbook series apart, the books for the various levels displayed a high degree of continuity or progression among themselves. This was felt to be the case by both researchers and book-users in the field.

7) Users in the field generally considered the new books to be of high quality or use-value. For those who had known the older book series, the quality of the new ones was higher. However, on a number of counts researchers in several cases tended to disagree with the book-users with reference to this point.

8) The majority of teachers had little or no acquaintance with teachers' guides. As such they could not assess their quality. However, a researchers' analysis of them together with some teachers' views revealed that their quality was fair or moderate, leaving a little more to be desired.

9) There was no significant difference between urban and rural schools with regard to the distribution of the new books and the assessment of their quality by users in terms of all the above mentioned aspects.

On the basis of the study limitations and pointers the following recommendations were put forward for consideration in terms of both further research and action.

1) The Department of Education, in collaboration with other institutions, should plan a large-scale classroom interaction study in which the interplay of the textbook with other elements of the classroom environment will be better gauged and over a somewhat longer period of investigation. Thus, it will be possible to assess the textbook-in-use quality within a dynamic complex.

2) The Ministry of Education should look into frequent changes and, in general, into the proliferation of many primary school books in the light of syllabus requirements and the escalating production and distribution costs to the government and to the average consumer. Part of the study should involve looking systematically into old books of various subjects so as to take advantage of the positive aspects in them. There is need to find out what primary school teachers and inspectors feel should constitute a good teachers' guide and/or handbook in their specific educational setting.

3) The Ministry of Education should evolve a system of reviewing its field report from the grassroots in order to be able to benefit from accurate and authentic information and also for purposes of realistically planning textbook production and distribution in and across the country.

4) The writing of subject textbooks should be conceptualized in terms of their entire series and of integrated components and these should be delivered together with their corresponding syllabus and teachers' guides. Launching of books piecemeal as is done at present, should as far as possible be avoided as this otherwise encourages discontinuity in the learning process of the children.

5) The Ministry of Education, or its Institute of Education, should ensure that information about new books reaches users promptly and, as far as possible, each teacher training college, the University's Department of Education and the National Examinations Council of Tanzania (NECTA) should be given a copy.

1 OVERALL CONCEPTUALIZATION OF THE STUDY

1.1 Background and problem statement

Among the many inputs into an education system, the textbook, accompanied by its teachers' guide and/or handbook, has a special place. For it systematizes and so synthesizes the knowledge, skills and values that should be imparted. It caters for the needs of the learner by presenting the material on both logical and pedagogical criteria. It is based on the official syllabus and therefore it becomes an important tool in preparation for his/her examinations.

In the past, when systems of education were relatively stable, textbooks rarely changed over many years. But today change is pervasive in all fields of life including education. Obviously the stability that was normally associated with the textbook has begun to disappear. In fact, even the syllabi on which textbooks are written undergo frequent and often fundamental change. This poses a great challenge to textbook writers and even textbook users.

Since independence Tanzania has effected many changes in her education system. Immediately after independence and before the Arusha Declaration of 1967, changes in education could be described as patchwork that left the system of education essentially intact. Such modifications of that order included the Tanzanianizing of educational content without affecting the basic purpose of education geared to the production of high- and middle-level manpower to keep the inherited colonial state and economic structures going.

However, in 1967, with the official proclamation to build a socialist-aspiring and self-reliant state, Tanzania evolved a new educational philosophy "Education for Self-reliance" that was the translation of the principles of socialism and self-reliance into the field of education. The new policy demanded the curriculum, its teaching methodologies, its organization and management, its relation to the immediate and larger community and to the world of work.

The implementation of the policy of Education for Self-reliance rested on the shoulders of the Ministry of Education and its sub-institutions, crucial among which was the Institute of Education. The Institute had to figure out what curriculum would best reflect the spirit of the new educational policy and what teaching-learning materials, including textbooks, would be needed to implement the curriculum.

It took some time after the launching of the new educational philosophy for the Institute to come up with relevant syllabi and textbooks. These were worked out subject by subject and, within each subject, grade by grade. By the 1970's initial curricular and textbook changes had been effected in several

subjects including Mathematics, English, Kiswahili and Science. Geography came in to join the group in 1976.

Predictably, the changes did not endure long! By the late 1970's, when the Universal Primary Education (UPE) target had reached high and its adverse impact on the educational quality began to surface, syllabus changes and, consequently, textbook changes came up again.

This study is about the assessment of the quality of textbooks produced around that time to meet UPE needs. In this regard it is worth noting that at that same time Tanzania was experiencing foreign exchange shortage and hence shortage of various types of imports including printing materials such as paper. But fortunately the Swedish International Development Authority (SIDA) came in to help Tanzania out of the problem and provided her with lots of paper for textbook production.

In connection with this it is also worth noting that of late SIDA got interested in evaluating the production and distribution of the UPE books for which they had provided paper donations. To carry this out they commissioned a consultant, Mr Bo Sedin, to study the textbook production and distribution processes. But this coincided with the interest of the Ministry of Education to look also into the quality of the books produced. For this the Department of Education was contacted which in turn organized a team of researchers.

This study, on primary school textbook quality, was therefore meant to feed into a larger investigation into the state of primary school textbook production and distribution. The textbooks concerned in this particular quality study were those in Geography, Science, English, Mathematics and Kiswahili.

1.2 The conceptualization of textbook quality

In an effort to conceptualize textbook quality the research team of the Department started off by taking note of the major objectives of providing primary education in Tanzania. These are:

1. To give pupils a permanent ability in literacy and numeracy or what are normally referred to as the 3R's, reading, writing and arithmetic.
2. To help pupils develop an enquiring mind and the ability to think and solve problems independently.
3. To impart socialist values, attitudes and knowledge which will enable pupils to play a dynamic and constructive role in the development of their society.
4. To provide pupils with an education which is complete in itself, to inculcate a sense of commitment to the total community, and to help the pupils accept the values appropriate to Tanzania's future.
5. To prepare learners for further education (Ministry of Education 1984:3).

It was in the light of these objectives that the Institute of Education prepared syllabi for various subjects and thereby worked out even more specific objectives for each subject syllabus on the basis of which it prepared subject textbooks for pupils along with teachers' guides. The textbooks and teachers guides are therefore supposed to be linked to the primary education objectives through the syllabi on which they are based.

Also, as mentioned in the introduction, textbooks are supposed to explicate the knowledge, skills and values to be imparted to the learners in a logical and pedagogically sound manner. This means that the manner of presenting the material in a textbook should be relevant to the learners' varied socio-cultural, educational and linguistic background. In short, the textbook must be as perfect a medium of communication as possible between the educator and the learners. In fact, the textbook should teach the skills, knowledge, values and methods of knowing specific to the discipline.

On the basis of this conception of the nature and purpose of the textbook for primary education, the research team understood the quality of the textbook and teachers guide to include the following:

1. The ability of the textbook/teachers' guide to reflect the specific subject syllabus requirements and therefore the general objectives of primary education.
2. The ability or power of the textbook/teachers guide to elucidate knowledge (concepts, principles, laws), skills and values related to the discipline concerned and effectively communicate in a logical and pedagogically found manner. The implication of this is that the language of instruction, examples, pictures and illustrations/figures must be appropriate to the learners' experiential background. Also the sequencing of the content in a textbook series must provide continuity and gradual progression into levels of difficulty for the learners.
3. The textbook/teachers' guide must be readable and handy to the users in the field. It must respond to their requirements as they change from time to time. It must prove to be a potent tool or element within the complex and dynamic process of classroom interaction.
4. The textbook must reflect an appropriate and up-to-date conception of the subject or discipline.

1.3 The purpose of the study

The purpose of the study was therefore considered to be as follows:

1. To conduct a content analysis of the textbooks and teachers' guides so as to find out the extent to which the books' content reflected the syllabi's requirements in terms of the provision of knowledge, values/attitudes and skills on the one hand, and the nature of the subject on the other.

2. To analyse the textbook's presentation in terms of logical and pedagogical sequence; the relevance of pictures, illustrations, figures and examples to the local environment and the learner's experiential background; the appropriateness of the language of communication to the learners' grade level; and the continuity of content of one level from that of the previous and subsequent levels.
3. To find out the users' (teachers' and pupils') experience with the textbooks/teachers' guides and their perception of the utility and usability of the books.

1.4 The research questions

The following were the research questions that guided the study.

1. Using the criteria set out above, how high is the quality of the binding, content, the presentation, the language, the pictures, illustrations/maps and the exercises of the textbook, according to both the research team and the book users in the field?
2. How far does the teachers' guide match with the textbook and how useful do the users find it for lesson planning?
3. Do the book users in rural areas view the quality of the books significantly differently from urban users?

2 STUDY METHODOLOGY AND LIMITATIONS

2.1 The researchers' content analysis and book users' views

The research team, in their capacity as University Staff with expert knowledge of the subjects on which the books under evaluation were written, were expected to make a content analysis of the textbooks along with their teachers' guide in relation to the syllabi and judge their worth. This was the first and foremost activity in determining the textbook quality.

The second step in the study was for the research team to collect the users' experiences and assessment of the books in the field.

2.2 Sampling and instrumentation

For this purpose two regions as far away from Dar es Salaam as Morogoro and Iringa were chosen. The team decided that it would visit 6 urban and 6 rural primary schools in Morogoro and 10 urban and 10 rural primary schools in Iringa. In the schools the researchers would firstly seek to interview head teachers and subject teachers after having filled in a questionnaire or opinionnaire about the quality of textbooks and teachers' guides. Secondly, the researchers would interview or test pupils on the textbooks with or without getting them to fill a questionnaire/opinionnaire. Thirdly, the researchers would make classroom observations to evaluate the books-in-actual-use. Fourthly, they were expected to assess the general situation of teaching-learning resources in the school.

Although general guidelines (see Appendix 1) were agreed upon by the entire research team as a basis for making the research instruments, it was left to each subject team to adapt those guidelines to fit the specificity of their subjects.

In short, the research instrumentation involved content analysis and critique of the textbooks and their respective teachers' guides in relation to the syllabi; head teachers' questionnaire-cum-interviews; subject teachers' questionnaires-cum-interviews; pupils' questionnaires/interviews/tests; a classroom observation schedule, and a checklist of the classroom and school environment in general.

Initially it was planned that the study would involve textbooks written in the five subjects (Geography, Science, Mathematics, English and Kiswahili) for Grades/Stdas IV, V and VI. But as the research team embarked on identifying the new textbooks it soon realized that only Geography had published and distributed a complete set of its textbooks while the rest had some way to go before nearing completion. In fact, Science had yet to equip Grade VII; Mathematics, Grades V to VII; English, Grade VII. Therefore, the idea of concentrating on pupils with their teachers in Stdas IV to VI was not feasible except for Geography. However, it was agreed that, in any case, the research would try to collect the experiences/opinions of pupils who had already

gone through the textbooks being evaluated. Thus, for example, Std VII pupils would evaluate Grade VI textbooks, Std VI would evaluate Stds V textbooks and so on.

The sample of the study was going to involve about 1 000 pupils, 200 teachers and 32 heads of schools on the assumption that one would deliberately identify 32 schools in both rural and urban districts which were definitely known to have and to use the textbooks, teachers' guides and syllabi to be assessed.

To ensure that both Morogoro and Iringa would take us to accessible rural and urban schools which have experiences with the books to be evaluated, requests were made by the Ministry of Education well in advance to the District Education Officers (DEO's) to choose for the research team those schools which possessed the new books. It is worth noting that the DEO's did assure the Department of Education that they would get their well-informed inspectors to take the researchers to the specified schools. The list of both rural and urban schools in both Morogoro and Iringa appear in the Appendix 3.

The data analysis part of the methodology was expected to be essentially content analysis of both the interview and questionnaire data with simple calculations of percentages so as to reveal significant trends of opinions or simple comparisons between the situation of rural and urban schools as far as the availability of the new books was concerned.

2.3 Data collection process

The process of data collection was methodologically important. As earlier mentioned, the DEO's were informed at least two weeks in advance about the research team that would want to visit both urban and rural schools which were using the new UPE books. Needless to say, that advance information proved very useful when the team actually set foot on the District. They found that the DEO's had lined up inspectors to escort them to the schools concerned. In fact the first day was essentially for familiarization purposes; the team split into two. One was escorted to all the rural schools and the other to all urban schools that would be visited in the Region. The main activity of each subject team was to distribute the questionnaires to the Heads and teachers so that they could start filling them, ready for collection on an agreed day when the team would return to those schools to interview the teachers, observe classes going on, interview or test pupils or get them to fill in questionnaires in their presence.

Another procedure that was built into the data collection process was that each subject team was supposed to meet every evening, discuss their daily observations and write a short report suggesting how best to improve on the initially agreed-upon research procedures.

This proved very useful in that significant problems that were likely to affect the entire research were immediately identified and the entire team could be convened to try to resolve them.

Such a meeting was convened in both Morogoro and Iringa to discuss two problems that were not foreseen.

2.4 Emerging study limitations

One unforeseen problem was the maldistribution of the books in the sense that on a number of occasions a school would have a pupils' textbook without the accompanying teachers' guide or, sometimes even the syllabus.

This problem was not expected because it was assumed that inspectors would not take the researchers to schools which did not have the new books. But unfortunately, they did exactly that. Evidently this problem in addition to the short-term use or else non-availability of some books, directly affected the weight which the researchers could attach to what head-teachers, teachers and pupils thought of the quality of the new books. With this statement let us turn to the presentation and analysis of findings.

3 PRESENTATION AND ANALYSIS OF EVALUATIVE FINDINGS BY SUBJECT

In this chapter evaluative findings are presented and analysed subject-wise. Thus there is evaluative data on geography, science, mathematics, English and Kiswahili. This approach is followed because, apart from using common guidelines for the development of subject-specific instruments, each subject study was quasi-independent. In addition, the number of books being evaluated differed from one subject to another. However, each of the mini-studies seeks to present the opinions of the researchers themselves as well as of the book-users in the field about the book quality and even about the quantity in so far as it affected quality.

3.1 Evaluation of geography books

A. UPE books and evaluation criteria

The UPE textbooks in geography that were being evaluated are:

- Wafanyakazi wa Tanzania, Ministry of Education, Printpak/MFUU, Dar es Salaam, 1976.
- Wafanyakazi wa Afrika, Ministry of Education, Printpak/MFUU, Dar es Salaam, 1977.
- Wafanyakazi wa Ulimwengu, Ministry of Education, Printpak/MFUU, Dar es Salaam, 1981.
- Jiografia kwa Shule za Maingii Kiongozi cha Mwalimu kwa Kitabu 1 - 4, Ministry of Education, Printpak/MFUU, Dar es Salaam 1981.

All these books have been authored by the Institute of Education which takes charge of curriculum development in Tanzania.

The first three books are pupils' textbooks. They are used in Grades IV, V and VI respectively. The first one has been printed three times while the other two have never been reprinted. The fourth book is a teachers' guide that caters for textbooks of Grades IV - VII. For the Grade III textbook there is a separate teachers' guide which is much more detailed. It should be noted that the Institute of Education has succeeded in putting in the field the entire series of textbooks in geography for Grades III - VII. In fact, geography is the only subject for which the textbook series is complete; the others have a backlog for one or more grades. It should be noted as well that the rationale for introducing these new geography books was the revision of the old geography syllabus so as to give it an "Education for Self-reliance" orientation.

The criteria for the evaluation were those spelt out in part 1 of this study. However, it is worth noting that those were looked at from the point of view of geography as a discipline that helps one to understand and utilize one's environment so as to achieve a high living standard. They were also looked at in the

light of the objectives of teaching geography in primary schools in Tanzania, namely,

- a) To enable the learners to understand the problems posed by their environment and to participate in the struggle to overcome them.
- b) To arouse the learners' curiosity and interest in learning about various aspects of their environment including relief, soil types, food and water resources and economic activities related to the utilization of natural resources for economic development.
- c) To enable the learners to appreciate and learn about the way various societies and communities in the world have successfully overcome the problems or challenges posed by their environment and so have attained their present level of development.
- d) To make learners realize that development depends on peoples' knowledge and endeavour in making good use of their resources.

e) To enable learners build self-confidence and self-reliance.

Here, only the evaluation of "Mafanyakazi wa Tanzania" will be presented.

B. Evaluation of "Mafanyakazi wa Tanzania", 1976

1. Pre-fieldwork assessment

The researcher's evaluation of the book before getting the benefit of users' opinions was as follows:

- a) The top cover is attractive; it shows different people engaged in different economic activities. However, the binding is poor and, added to its paper back form, it may not be durable in the hands of most pupils.
- b) The preamble suggests that there should perhaps be some geographic publication to keep users abreast of new economic developments that are of geographic interest.
- c) Chapter one starts too abruptly with mapreading. Since this is an entry point for the geography of the grade, it could have better started with the exploration of what pictures and maps are and their place in geography learning. It would seem that the textbook follows too slavishly the syllabus at the expense of offering an appropriate introduction that might, for example, include a recapitulation of the differences between real objects, their picture and map representations as well as giving a considerable orientation on both picture reading and map reading/sketching. In that regard, there is a lot to be learned from Adult Education geography publications.
- d) The section on the use of colour on pages 5 - 6 is unrealistic in the absence of colour in use. The section on

conventional signs is very important as it is key to the map-work to follow. Yet it might have been more important to help learners identify the most important aspects of the map: the title and marginal information. In this regard the title of the map on page 22 does not match what it depicts in general; one would also expect that the conventional signs would be well used in the maps which follow the presentation of the conventional signs. But it has not always been the case. The key is often incomplete. The maps have failed to locate properly (to scale) areas which grow various crops. However, in general, one can say that practical geography should have been tackled more systematically in relation to both regional/economic and physical geography. Thus, there should be a section where pupils learn how to draw a sketch-map, including giving them such tips as: start with a frame, then approximate the location of the main features, etc. In addition, the provision of a small interpretive account after every map might help learners in focusing their attention and slowly drilling them in map reading skills including the identification of the title and other marginal information.

e) Pictures: There are 35 in all in the textbook. Of these only 13 are good. The rest have problems of inappropriate focus and/or being blurred.

Further on pictures one notes that they would very well help pupils to understand the chapters on industries especially with reference to manufacturing processes that are alien to the learners. An atlas-cum-pictures might be a very necessary accompaniment to the textbook.

f) The case study approach that the textbook has adopted is quite good. The preamble to it includes locating the areas of production, and discussing crop requirements, types (if any) of crops, crop diseases and needed pesticides/insecticides. The actual case study of the crop involves field preparations, planting process, plant care, harvesting, processing and sale.

g) Exercises: In most cases these are few and not demanding enough; they tend to test the comprehension of the chapters almost paragraph by paragraph. The development of self-reliance in the learners through the exercises does not look very likely. One of the most important exercises seems to be requiring pupils to draw sketch maps to locate things and then discuss them. But, in this connection, one notes that the textbook itself has rather poor maps for the learners to emulate.

h) Language level: By and large this is appropriate for the grade level but, all the same, considering the cultural and geographic diversity of the learners for whom the textbook is written, a glossary at the end of the book would be desirable. For example, it is conceivable that in areas where coconuts are not grown the terminology that has developed in connection with coconut culture may need some explanation and explication.

i) Relation to the syllabus and teachers' guide: On the whole the book meets the demands of the syllabus. However, one gets the impression that it could go beyond the syllabus in some areas such as teaching children how to draw and read a map or teaching them about small-scale industries in preparation for understanding large-scale industries. In turn the teachers' guide does follow faithfully the textbook chapter showing the teaching objective of each, the teaching aids to be used, stages to be followed in lesson development and indicating the type of exercises to be developed for the pupils, however without giving examples for the teachers. There is only one diagram and one sketchmap to help the teachers. Otherwise the teachers' guide is devoid of such supports. It is assumed that teachers will choose from the methods or approaches of teaching which are presented in the introductory part of the guide. The researchers were not sure how useful the teachers' guide would be to the teachers in the field. They were of the opinion that it might be too brief for their use.

j) Overall initial impression: On the basis of prefieldwork analysis the textbook was considered to be fairly good. Outstanding defects were found in connection with the introduction, the maps and pictures, and exercises. Other shortcomings included the failure to provide an orientation and drill on how to draw sketchmaps, read maps and pictures and the absence of a glossary for easy reference. It was expected that users in the field would note these problems and even more.

2. Users' assessment in the field based on questionnaire-cum-interview data.

a) School Heads' Views

On the availability of "Wafanyakazi wa Tanzania" in schools, 27 headteachers provided information as summarized in Table 1.

Table 1

Availability of "Wafanyakazi wa Tanzania" (WT) with teachers' guide (TG) in the schools

Schools	Had both WT & TG	Missed both WT & TG	Had only student copy of WT	Had TG only	Total schools
Urban	2	2	2	7	13
Rural	4	8	2	-	14
Total	6	10	4	7	27

From the table it is clear that of the 27 school heads 13 were urban and 14 rural. The information provided by them indicates that only 6 had both the student textbook and its teacher's guide, 10 had neither of them, 4 had only the textbook while 7 had only the teacher's guide. That means that only 10 schools

has an acquaintance with the student textbook while 12 had knowledge of the teachers guide. As far as availability was concerned rural schools were more disadvantaged, for 8 as opposed to 2 urban schools had neither the student textbook nor its teacher's guide.

Information that is not included in the table shows that the number of textbook copies which the schools had ranged from 5 to only 29 per school while those of the teachers' guide range from 3 to 10. The standard four class size ranged from 33 to 189. In the schools the number of geography teachers ranged from 2 - 10 (or averaged 5).

b) Geography teachers' views

(i) Of the schools in the sample, only 7 schools responded to the questionnaire on "Mafanyakazi wa Tanzania"; 3 schools were rural and 4 urban. In all, 11 teachers expressed their views on the quality of the textbook and its teacher's guide. Of the 11 teachers 8 came from rural schools, 9 were female, only 2 had an experience of more than five years in teaching. Their experience with the textbook ranged from one month to 7 years long. Among them all only 2 had had any form of in-service education to orientate themselves with the new books.

(ii) Seven teachers admitted that their schools had only single copies of the textbook, which was kept and used only by themselves and not by the pupils. Two said they did not have even a single copy of the textbook. However, six teachers did reveal that some students had bought their own copies of the textbook which they brought with them to class and used particularly for doing exercises. Practically all eleven teachers said they had no auxiliary books for supplementary or follow-up reading.

(iii) Content analysis: At the level of concepts some teachers pointed out that the book did not explain well the sources and types of rainfall as well as the seasons. At the factual level, on page 10, there was confusion on conventional signs for crossings. On the whole it was the teachers' view that the number of pictures and maps were inadequate and their quality was poor.

Chapter 7 was considered to be too brief and, on the whole, the book needed some updating in terms of data on recent economic developments or else occasional information sheets should be sent out to schools to update the teachers' awareness levels and knowledge.

(iv) Level of difficulty of the content: In the teachers view the following areas are fairly difficult to handle: map-reading, types of fertilizers, industries and field excursion organization. In addition, the textbook was not considered quite useful in covering conventional map symbols and the physical features of Tanzania. In these cases the atlases were considered to do much better. Exemplary chapters in the book were identified as 3, 4 and 16.

(v) Language level: Nine out of the 11 teachers considered the language of the textbook to be fairly easy and attractive to the pupils. However, some teachers suggested that at the end of the textbook a glossary of scientific and not-nationally known words should be provided.

(vi) Exercises: A number of teachers agreed that there was a need for the exercises to be increased and for them to demand more than simple comprehension; they said that they (the exercises) should challenge the learners to go beyond the given information. For example, having taught them about plantation sugar growing pupils could be given questions about differences between that and small peasant-holder sugar growing in view of the problems each confronts. They also, in that connection, could be asked to find out which regions or areas could grow sugar canes even though presently they don't! Such questions should make them think and challenge them towards self-reliance.

(vii) Fulfilment of self-reliance objective: As noted in connection with the nature of exercises above, the majority of teachers (10) were of the opinion that the effort with which the textbook tries to build attitudes of self-reliance and knowledge is between poor and average. They suggested, for example, that pupils should learn about small-scale industries in addition to the big industries so as to see possibilities of what they could realistically do in industrialization.

(viii) Comparison with old books: On the question of how the new book compared with old ones, five teachers said they could not make any comparison because they had not used any book other than this particular textbook.

(ix) Overall assessment and suggestions related to the textbook. The book was considered useful. Eight teachers used it almost exclusively for lesson preparation. They in fact assumed that the syllabus was subsumed in that textbook. Only a few made any references to other books. Their main suggestions included the improvement and addition of maps and pictures as well as exercises and the printing of enough copies of the textbook for pupils and teachers.

(x) On the teachers' guide: As noted earlier, the teachers' guide was not available in schools. In fact 8 teachers said that their schools had no teachers' guide. Only 3 said they had any. However, most of the teachers saw the need for having a teacher's guide that should have several qualities including having a wider horizon and being more detailed than the pupils' textbook. The reason for these qualities, it was pointed out, was that in many schools teachers are called upon to teach any subject regardless of personal inclinations. Thus, even teachers who have no special liking for geography end up teaching it. Evidently, it was suggested, such teachers need a much more elaborate teacher's guide than in the case of, say, secondary school teachers who generally handle those subjects for which they are specifically trained.

Other suggested qualities of the ideal guide were: having more references for the teachers; giving examples of exercises that the teacher should set besides those offered in the textbook; not being overly prescriptive and being suggestive of alternative teaching approaches when prescribed tools and materials are not available.

(xi) Relation to the syllabus: On the whole it was agreed that both the textbook and the teacher's guide synchronized well with the syllabus apart from a negligible number of topics. About the syllabus itself teachers had no misgivings except for those teachers who complained that, whereas their training was subject-specific, their syllabus was interdisciplinary in orientation, taking the form of environmental studies. The books they had, even in geography, were not specific for the community schools syllabus and yet they still had to do national examinations which were not based on environmental studies. They suggested that the Ministry (of Education) should sort out this issue as a matter of urgency.

Another thing that arose in connection with the syllabus was the need for the Institute of Education to synchronize the geography syllabus with that for agriculture, science, mathematics, etc so as to eliminate any discrepancies and maximize the integration of knowledge for the pupils. By so doing one could, for example, time the teaching of rainfall in geography to match with the agricultural syllabus requirements. Also duplication in the teaching of the planets in both geography and science could be minimized too.

c) Pupils' Views

In the 7 schools which responded on the three textbooks, 50 pupils expressed their views on the quality of the textbooks. The effective responses were 44 as 6 were not explicit. Of these clear responses 16 were rural and 28 urban. The respondents came from only two schools (one urban and the other rural) which had pupils who had actually interacted sufficiently with the textbooks to be able to assess them. It was not possible to administer the instruments to pupils in other schools which had at most only single copies of the textbooks. In what now follows, therefore, the views of pupils from the two schools are presented as far as "Wafanyakazi wa Tanzania" is concerned. The views come from a total of 27 pupils (16 urban and 11 rural).

(i) Book-Pupil ratio. The pupils revealed that 3 - 5 pupils shared a copy which was kept and used by the teacher. Only 6 pupils said they had personal copies which they used mainly in class for doing various exercise. Outside-class uses were very limited. Of those who had interacted with the textbook, over half had skipped chapters 8 - 16 and read superficially the rest. None of them had used any supplementary readers apart from the atlas. As far as they were concerned, therefore, they were not in a position to compare the book being evaluated with other books.

(ii) Language level. For the majority of pupils the language of the textbook was simple or very simple, with only a few difficult words and few exciting explanations.

(iii) Content Analysis. Over half of the pupils considered chapter 3 to be one of the easiest, followed by chapter 14 and then 5. According to some, the most difficult chapters were 4, 14 and 16. Pictures and illustrations were considered exciting by 25 pupils. However, there were a few difficult pictures. On the whole, according to 16 students, the content and maps were easy to understand.

(iv) Fulfilment of self-reliance objective: According to 43 students, the textbook does successfully attempt to impart self-reliance skills and attitudes.

(v) Frequency of book use: According to the pupils, the teachers used the textbook much and their parents appreciated this fact.

(vi) General recommendation: The general recommendation made by the pupils was that each pupil should have his/her copy of the textbook.

3. Summary assessment of the quality of "Mafanyakazi wa Tanzania"

On the basis of the views of both the researchers and field users, one can say that the textbook is, on the whole, good and appropriate for Grade IV. However, it could be made better by offering a more arousing introduction; by using colour; by systematically orienting pupils on picture- and map-reading and sketching; by improving on the quality of the pictures and maps, and on the quality and quantity of the exercises; and by providing a glossary at the end of the book to cater for learners of varied cultural and geographical backgrounds. The teachers' guide should be much more of a handbook especially on such difficult areas as map-reading, fertilizers, industries and the organization of field excursions. In addition, a good atlas is a necessary accompaniment to the textbook.

C. Other general observations from the field

1. Teachers were using Adult Education publications which proved to be most relevant for initiating learners into geography in the context of Morogoro Region. The book starts with the meaning of geography and its significance in the life of the learners. The rest of the topics are about the local geography of Morogoro Region. Thus, the learner is referred to places he/she knows or can visit. Every topic is well illustrated and sounds true to life. At the end of the booklet there is a glossary for easy reference by the learners. It would seem that, at the primary level, local geography publications would be more effective. There is a lot for the Institute of Education to learn from the Institute of Adult Education.

2. The fact that the research team were given as escorts inspectors who were supposed to be best informed about the situation of books in schools and yet they often landed in schools with acute book shortage, made them wonder about the correctness of the information available about the availability of books within regions and districts. On this issue some teachers suggested that the Ministry of Education should rely

more on data collected from the grassroots; that is, from teachers, headteachers and pupils.

3. At school level one could occasionally find that some books reached as far as the head-teachers office but had not yet found their way to the teachers and pupils. This suggested that distribution of books within the schools might also be a problem in some places.

4. One headteacher suggested that, to solve the problem of book shortage, the district or ward should identify one centre where all the required books for each subject would be available for teachers to consult. In addition, distribution officers should be professional teachers. This suggestion showed that, if consulted, teachers and school heads could give very constructive ideas about alleviating the problem of book-shortage.

5. One casual encounter with inspectors who happened to visit the same school as the research team did reveal that some inspectors were very informative about the problems of teachers and students in relation to the new books. There was one inspector who was so resourceful that he even had written a teachers' guide of his own to help teachers meaningfully use the syllabus and the textbook.

It was pointed out that, in the absence of the teacher's guide, teachers tended to use the textbook almost like a Bible, following it slavishly, even without lesson plans and notes. For the same reason, teachers taught different things about the same topic or theme. The inspectors insisted that the Institute of Education should involve inspectors not only in the writing but also in evaluating the textbooks.

6. Whenever the researchers began to talk about new books, both headteachers and teachers had their eyes and ears open. It was the experience of many to see "so many books coming out" that it was not easy to tell which were the required new ones. What the researchers often succeeded to do was to arouse teachers' and student awareness of what they were supposed to have but missed. Teachers felt the need for information about new books to reach them as early as possible if they were to apply pressure on those who should see to it that the new books should reach them.

7. Several teachers felt that the books for Grades IV and V should have large characters as in science.

8. It was the view of many teachers and school heads that the Ministry should print and launch the entire series of the new book rather than do it piecemeal as it now does. The present system brings confusion because, having been started on a new series, pupils then jump back into the old series and so miss all continuity. In addition, teachers should be given orientation courses about the new books.

9. It was a frequent remark from teachers that changes of syllabi were too frequent; that this jeopardized stability of the education system thus making teachers, pupils and parents

adopt a wait-and-see attitude instead of firmly backing any proposed educational reforms.

10. It was suggested by some teachers that the same print should be adopted for all books of one grade.

D. Summary of the findings about the new geography books

1. The syllabus was available in all but one community primary school. The three textbooks being evaluated were available along with their teachers' guides in not more than 6 out of 27 schools. Between 3 and 6 schools had the textbooks without their accompanying teachers' guides while between 7 and 10 schools had teachers' guides without the textbooks. This meant that teachers of hardly 20 % of all visited schools had the required acquaintance with the books and could therefore give a truly weighty assessment of the books. Even then the majority of such schools had only single copies of each of the textbooks and so students generally had no copies they personally handled.

The exception to this was in two schools (one urban and the other rural) where about 5 pupils shared a book. In this regard, it is worth noting that the lucky schools had received not more than 29 copies of the textbooks and that was too long ago to expect them to be still there, given the quality of their covers and binding.

2. The teachers had an average experience of 5 years with the textbooks. Practically none of them had received any systematic orientation in the use of the books. Those who in addition had no teachers' guides were even worse off.

3. Of the three books, "Wafanyakazi wa Tanzania" was more available in schools (10 out of 27) followed by "Wafanyakazi wa Ulimwengu" (7 out of 27). Only 5 out of 27 schools had "Wafanyakazi wa Afrika". The situation of book availability was like that possibly because the first textbook has been reprinted three times while the other two have not been reprinted.

4. The content of all the textbooks met the syllabus requirements except for a negligible number of topics. Only a few teachers had problems of understanding the textbooks, and that was in relation to only a few topics in each of the textbooks. The language of the textbooks was considered easy enough for pupils although the addition of a glossary at the end of each textbook was deemed of likely help to learners of varying cultural and geographical backgrounds. The exercises were considered inadequate in number and in terms of their demands on the pupils in view of encouraging attitudes, knowledge and skills for self-reliance. The books were found to be grossly wanting in the quality and, to some extent, in the quantity of maps, pictures and other illustrations.

5. On the whole, very few teachers had an experience with older books to be able to make any meaningful comparison with the new geography books.

6. Very few teachers had known the teachers' guides enough to be in a position to assess their quality. Those who had used them considered them to be wanting in terms of the scope of details, reference and demonstration of additional and more demanding exercises, and pedagogical alternatives in the face of situations of expected shortages of required teaching/learning materials. On the whole, the teachers' guides were not considered to have been written to meet the specific requirements of primary school teachers who were called upon to teach a multiplicity of subjects regardless of their inclinations and/or academic strengths.

E. Recommendations

On the basis of the summarized data, which is more of indicative than conclusive value, one may suggest or recommend the following.

1. After rigorous editing to eliminate the identified factual and conceptual errors and to improve on the maps, pictures and diagrams, the books should be reprinted.
2. The distribution of the books should be done more carefully so that the syllabus, the textbooks and the teachers' guides should go together, and enough copies for the pupils should reach the classroom.
3. The atlas should be to the geography textbooks what the dictionary is to language textbooks. The present version of the atlas was considered to be not detailed enough and so not useful for all grades.
4. It is too long ago since copies of the textbooks were sent to schools to expect them to still be around in schools. The life of the books should have been correctly estimated on the basis of the durability of paperbacks which are glue-bound instead of stitch-bound, and reprinting arranged accordingly. Obviously the life of the textbooks would be longer if they were hard covers and/or stitch-bound.
5. If the provision of sufficient textbooks, teachers' guides and atlases is not possible, then there should be established a centre in the district or ward where several full sets of all the books together with their supplementaries will be available for teachers to make use of.
6. The teachers' guide for Stds IV - VII should be at least as detailed as that of Std III.
7. The geography syllabus should be synchronized with the syllabi of other subjects, especially science, agriculture and mathematics, to ensure greater integration of knowledge for the pupils. Also, the same print should be adopted for all books of one grade. On the whole, lower grades should have a bigger print and have more and better pictures, maps and illustrations.
8. In terms of local relevance and usefulness to forming initial geographical concepts, geography books for adult

learners are very exemplary. A booklet written with the Morogoro environment in mind, proved to be very ideal for lower grades in Morogoro region. Similar books on other regions and districts could be produced as supplementary readers (given the problem of having all locally relevant details in a centrally set "national" textbook).

9. The Ministry of Education should review the entire distribution system at the national, regional, district and school levels to eliminate bottlenecks and devise a system whereby schools will be kept informed of what at any one time they should have received in terms of new teaching-learning materials and of what to do in case they have not received them. In short, the Ministry should seek feedback from the grassroots (the classrooms and schools) in order to enhance the efficiency of the distribution organs in-between.

3.2 Evaluation of science books

A. UPE Science Books and evaluation criteria

The science books being evaluated were:

- Sayansi Kitabu cha Kwanza, Taasisi ya Elimu, East Africa Publications Ltd, Arusha 1983
- Sayansi Kitabu cha Pili, Taasisi ya Elimu, East Africa Publications Ltd, Arusha 1986
- Sayansi Kitabu cha Tatu, Taasisi ya Elimu, East Africa Publications Ltd, Arusha 1986

The books were being evaluated in terms of the following parameters set out under the conceptualization of textbook quality presented in part II, Chapter 1, i.e.

- a) Content analysis to see how far the content reflected the requirements of the syllabus currently in use in the schools.
- b) What teachers and learners thought of the books and their usefulness as standard textbooks for primary schools.
- c) Presentation of content in the books in terms of logical/pedagogical sequence, relevance of examples, illustrations and figures emanating from the local environment and that of the learners' experience; the language level and continuity of content.

It was considered necessary first to study the primary school science syllabus before forming any opinion on the books. According to the primary science syllabus the aims of teaching science in primary schools were given as the following:

- (i) The learner to get the opportunity to develop and stretch his mental ability through curiosity and research.
- (ii) The learner to develop the ability to innovate and make things on his own which will promote his personal independence and self-reliance.

(iii) The learner to develop a good science foundation which he will use for solving day to day problems he encounters in his environment.

(iv) The learner to develop the habit of cooperating with other learners in school with the ultimate aim of making him to acquire socialistic habits rather than individualistic and selfish ones.

(v) The primary science education to prepare the learner for the life after the primary education cycle where the learner will be able to further develop himself.

It is against this background that an effort was made to assess how well the content of the books was suitable for bringing forth the identified goals.

Here, only the evaluation of "Sayansi Kitabu cha Kwanza" will be presented.

B. Evaluation of "Sayansi Kitabu cha Kwanza" (Book I), 1983

1. Pre-fieldwork analysis

It should be noted from the outset that this textbook was intended for standard III or year three of the primary education. This is the year when primary school children begin to learn any science at all. Given the fact that science is being introduced for the first time in the life of primary education, it would be helpful if the book began by explaining what science is, how it is different from other subjects, how information is arrived at in science, and why we learn science at all. This would awaken interests of the learners and show them that science is a very systematic subject which tries to explain observed phenomena. The book sets off too suddenly without any preliminaries which leaves the learners wondering what science is after all.

The book has been introduced as a science textbook for primary schools but not accompanied by a teachers' guide. A teacher's guide helps teachers to know the sort of things to prepare for, where to lay emphasis, it spells out the drills the learners will be given and ensures uniformity between different teachers teaching the same content and even between schools. The absence of a teachers' guide in this case meant that teachers could lay emphasis where they pleased, which in many cases would reflect their background training. Again without a guide it would be difficult to bring forth the stated objectives. Given content alone without some direction on what behaviours to develop, the book might not achieve the intended goal.

The book starts off with a rather difficult table to be filled by children who have never had practice of doing such before which makes the book start off with an activity which may not be exciting to all the children. However, the book seems to be written along the demands of the syllabus but reading through the book one could easily cover the book in a very short time as it would tend to be read like a story book. In fact teachers and

pupils tended to suggest that the book is very easy although there are many concepts which are very subtle and requiring deep understanding for them to be properly put across. Broad and deep topics seemed to have been given very light treatment, thus giving an impression that they were so simple and had perhaps nothing more to be learned beyond the level of the book. However, one could argue that it is indeed sensible to make the book simple and easy to read, but it should not thereby create the impression of things being easy and simplistic.

It is difficult to see how the stated objectives in science syllabus could be realized by merely presenting a book; some guidance ought to be given, for instance, on how to inculcate the habit of cooperating with other learners in school for the development of socialistic tendencies rather than individualistic and selfish ones; or at least to give some guidance on the sort of things children should be given practice with in terms of innovating and fabricating in order to enhance their personal independence and self-reliance. It would therefore seem reasonable that, however good the book may be, it is still incomplete without a teachers' guide. If however, the book was meant to be a students' book, which they could read on their own, then it ought to be written along the lines of self-instruction or teach yourself.

Certain concepts have been introduced in the book without any background on which to relate them to, and without sufficient explanation to make it easy to be followed. For instance on p 3 the author introduces a topic on the main parts of a mammal. There is no explanation of what a mammal is or how a mammal is characterized. The author just begins to name the parts of animals including those of a cow, a lamb, a goat, a rat, a boy and a woman. In the team's opinion, the concept of mammal should be introduced when classification of animals has already been discussed. This classification would include birds, reptiles, fish, frogs, and mammals; how they differ from each other etc. From here the concept of mammal could then be introduced because the pupils could then differentiate the mammal from other creatures.

The exercises at the end of each chapter are all recall types and only seek factual information. The exercises are such that if a pupil cannot recall, he can simply go back to the book and get the answer. For instance on p 13 a question is put: "What do you call animals which breastfeed"? If the idea was to test whether children have mastered the concept of a mammal, the question could have been improved by stating, "Name any 5 animals which are mammals". For the student to answer this question correctly, he would need to know what characterizes a mammal from other creatures, before he could correctly list down the animals.

As to the physical quality of the book, one found the binding was satisfactory for the size of the book but it was not likely that the book would last for a long time because of its soft paperback. Handling of books by children at that age was likely to be rough and therefore special consideration ought to be taken to strengthen the book so that it can last. The size of the book was quite appropriate in terms of number of pages,

length and thickness. The size of the print was quite large and satisfactory. Proof-reading was on the whole satisfactory with exception of a few errors.

2. Teachers' assessment of the book

All together there were 14 primary schools rural and urban, selected from Morogoro and Iringa regions, which produced teachers who gave opinions on the book. Each school produced at least one teacher who had interacted with the book for a reasonable period to give an opinion. On average it turned out that about 50 % of the teachers were Standard VII leavers i.e. those who had just finished primary education and trained as teachers, and the other 50 % was made up of Form IV leavers. The teaching experience of all the teachers ranged from one year to 19 years but the majority of them had a teaching experience of 2 to 8 years. Most schools received the book some time between the end of 1985 and the beginning of 1986 in which case the book had been used in the schools for only about one year. On the whole the teachers felt that the book covered the syllabus adequately; it was easy to read and follow; the examples cited in the book were very clear and relevant; the level of the language used in the book was just right and the suggested teaching and learning materials was largely possible to obtain.

It was felt, however, that some topics were not sufficiently explained for their ease of teaching. These were particularly Magnetism and Electricity, Meteorology and Astronomy. The teachers claimed that these topics were difficult because they were too briefly covered in the book when they should have been explained in detail and extensively. Similarly there were several illustrations in the book which did not carry sufficient explanation for someone to follow with ease. And of course because there was no teachers' guide, the teachers were not assisted in any way to make it clearer to the pupils.

The teachers also felt it was inadequate to represent reality in black and white. For instance the author was trying to explain types of food by presenting drawings of foods such as stiff porridge, potatoes, rice, bananas, eggs, meat, and fruits which included oranges, carrots, bananas, mangoes and grapes. All these were represented in black and white making it difficult for a pupil who had never seen, for instance, grapes to be able to recognize them when he saw them; or if he had never seen a red beet-root or a cauliflower, he could not simply recognize it when he saw one. It was therefore thought that learning would be rather artificial. Hence it was advisable for the books of beginners to use colour instead of representing things simply in black and white. It was also felt that diagrams and pictures should carry sufficient explanations.

3. Pupils' assessment of the book

In each school visited, a questionnaire was issued to about 20 pupils who had interacted with the book for a substantial period of time. These pupils were selected to represent below average, average and above average pupils. This was done to solicit opinions representing the whole spectrum of ability in order to judge how well the book was suitable for a variety of abilities.

It was interesting to note that all the children liked science and that all of them found the book easy to read. Most of them remarked that diagrams and pictures used in the book were of things found in their own environment and that although they could read and understand the book on their own, still there were plenty of things they could not fully understand without the help of a teacher. They indicated such topics to be: Magnetism and Electricity, Meteorology, Astronomy and Matter and its states. There was no difference in terms of familiarity with the subject matter between children of urban schools and those of rural schools. There were a few illustrations in the book which sort of perplexed some rural pupils. For example, there is an illustration of a Western type of toilet. The floor on which it is situated looks as if a carpet is put there. For children who have had no experience with this type of toilet they may think that this type of floor is a must for such a toilet. Other children even wondered how this would be used because there was no place to put one's legs when using the toilet. Again on this same topic, two examples were cited - one the Western type of toilet and the other the pit latrine. This left out a rather familiar one, the Asiatic type which is perhaps more wide spread than the Western one. This omission might make the student think that the Asiatic type is not an example of a good toilet.

The book was shared among the pupils and there were not many copies available in any particular school. On the whole there was no school which received more than 30 copies of book one. This meant that pupils shared the book and sometimes as many as 5 pupils per book. Because of this scarcity, pupils were not allowed to borrow the book for home readings; they could only use the book at school.

C. Summary of the findings

There are three books which have already been produced for teaching science in the primary schools. These are Science Book I, II and III which are intended for Standard III, IV and V respectively. Few copies of book I were in the schools and were being used; very few schools had received book II and none of the schools had received book III at the time of the research.

In the first book, science was introduced in a rather uninteresting way because it did not make the learner to realize that science was a body of knowledge whose nature was logical and systematic. The book did not introduce the learner to the concept of science, it simply plunged into topics in science without a sufficient background to relate it to. The book treated various topics in a simplistic and insufficiently explained way thus rendering many science concepts appear light and easy although very subtle.

No teachers' book has been produced for any of the books and therefore the use of the books is unsystematic. Because of absence of teachers' guide, it leaves every teacher on his own to figure out the approach which will be suitable for teaching various topics.

Book II is a repetition in content of book I with a little more detailed treatment and with some addition of a few new topics.

Book III is a much more elaborate book with content covered much more neatly because students are involved in most activities where they experiment and draw their own conclusions.

The books try to follow the syllabus too closely to the detriment of denying the learners the opportunity to learn anything outside the syllabus.

0. Recommendations

1. The first book should make an effort to explain to the learners what science is, how information is arrived at in science and why we learn science.
2. The books ought to be accompanied by teachers' guides to help teachers to know the approach to adopt and where to place emphasis.
3. Diagrams and pictures should be sufficiently explained to make the pupil understand with ease.
4. Concepts should be introduced with as much background information as possible to make it easy for the learner to relate it to something he already learned before.
5. Whenever possible, exercises should offer a challenge and test as many mental abilities as possible.
6. The books for beginners should whenever possible use colours so that things can be vividly comprehended.
7. Books for children whenever possible should be strengthened and made of hard paperback so that they can withstand rough handling.
8. Supplementary readers should be available to accompany the main texts, so that the learner can have an opportunity of learning from more than a single source and overcoming difficulties associated with one way of explaining things.
9. Many more copies of any one book should be available so that students can have ease of interacting with the book.
10. The books should cover more than what the syllabus demands so that the learner can have an opportunity of learning something extra.

3.3 Evaluation of mathematics books

A. Mathematics teaching objectives as evaluation basis

The current mathematics syllabus for primary schools resulted from the former one which was prepared and produced in 1969. After the evaluation exercise done on the mathematics subject (primary school level) in 1978, it was found necessary to change the syllabus. Apart from the suggestions given after the exercise, directives from the Government (given in 1982 and 1985) were also considered in producing the syllabus being used now.

The objectives of teaching mathematics at primary school level are as follows:

1. After primary education, the pupil should be able to count and know the main implications of the basic primary operations, +, -, \times , and \div .
2. The pupil should be able to apply the mathematics knowledge and its basic techniques in daily life activities.
3. The pupil is expected to be inquisitive in applying the axioms of mathematics and its theorems.
4. He/she is expected to solve mathematics problems quickly and correctly.

In order to attain these objectives, mathematics teachers at this level are advised to:

- a) Make pupils do many problems connected with the four operations of +, -, \times and \div .
- b) Make pupils solve word problems of various types.
- c) Use visual aids (where necessary) in teaching mathematics.
- d) Enable the pupils to understand the aims and applications of different mathematics axioms and theorems.
- e) Enable the pupils discover/see the application of mathematics in daily life by making visits to some areas (industries, etc) and through self-reliance activities.
- f) Give many oral exercises to pupils.

Thus if one is to evaluate the primary school mathematics books one should check whether or not we have books which can enable the pupils attain the objectives listed above. One should also check whether or not the books can help the teacher in fulfilling the advice list given.

With this in mind, the team did the evaluation on the primary school books and then went to the field to get more information from the direct users of the books.

B. The new maths books and their availability

Research was done on four pupils' books (Books I to IV), their corresponding teachers' guides and the mathematics syllabus for primary schools.

The data were collected from 17 primary schools in Morogoro and Iringa regions: 4 from Morogoro urban, 5 from Morogoro rural, 3 from Iringa urban and 5 from Iringa rural. Forty-five teachers took part in filling the questionnaires whose total number was 51. At the same time, achievement tests were administered to pupils. The size of the classes ranged from 20 to 65 pupils. Standard two pupils sat for a test covering book II and standard four for a test covering book III. In some few cases,

pupils using the book this year answered questions from the part of the book which they had already covered.

It was noted that almost every school visited had books I and III for pupils and book IV teachers' guide. Teachers' guides for books I, II and III were not available in schools except for a few individual teachers who had their own personal copies. pupils' book IV was not available. Thus, during our visits some teachers (for Standard IV) had the opportunity of looking at sample copies of the pupil's books and managed to give their general comments on the book.

Apart from collecting data through achievement tests and questionnaires, one held discussions with teachers in order to get more general views which were not given in the questionnaires. The observations are summarized below: specific and general ones.

C. Evaluation of "Hisabati Kitabu cha Kwanza"
(Book I)

About 60 % of the teachers who had used this book were of the opinion that the problems given for each exercise were enough while 30 % said that they were not. On the other hand 50 % of the teachers had the opinion that revision problems at the end of each chapter were not enough while 40 % considered them to be enough and 10 % were silent on the issue. A total of 20 teachers filled in the questionnaire on Book I.

D. Evaluation of "Hisabati Kitabu cha Pili"
(Book II)

About 60 % of the teachers who had used book II were not happy with the number of problems per exercise given. 10 % did not respond. On the other hand it was observed that the revision problems were not enough. Only 20 % were not for this observation. Seven teachers filled in the questionnaires.

E. Evaluation of "Hisabati Kitabu cha Tatu"
(Book III)

About 95 % of the teachers were satisfied with the number of problems. Only 5 % said the problems were not enough while 2 % did not respond. Seventeen teachers filled in the questionnaires.

**F. Evaluation of "Hisabati Kitabu cha Nne Kiongozi cha
Mwalimu"**
(Book IV teachers' guide)

More than 70 % of the teachers who looked at the pupil's book were of the view that the problems were not enough. More than 60 % thought it was proper to include sections on multiplication and division in chapter two of book IV. About 30 % were not for this opinion while 10 % did not respond. Seven teachers filled in the questionnaires.

It is suspected that the yellow colour of the covers of the teacher's guide (book IV) might have been the cause of the

confusion in which the pupil's books (book III), whose covers are also yellow were sent to schools together with the book & teachers' guide.

Besides the comments on the quantity and quality of the exercises in the books, teachers made other observations of a general nature.

1. The majority of the teachers (more than 70 %) were of the opinion that the way the books were printed was good and the accompanying diagrams/drawings were relevant.
2. The majority of the teachers (at least 90 %) said that the language used is simple and clear, and the technical words and symbols were easy to understand.
3. It was noted by more than 90 % of the teachers that all the pupils' books have no explanations and examples before the exercises. That, in their view, made it difficult for the pupils to study the books without teachers' guidance.
4. The problems given are very much related to real life.
5. Directions given in the teachers' guides are good, relevant to the respective exercises and are easy to follow. The directions are so clear that teachers can follow the chapters even without making references to other books.
6. The sequencing of chapters and sections in the books is as good as that of the topics in the syllabus.
7. The ratio of textbooks to pupils ranged from 1:2 to 1:7. Above 90 % of the schools visited had at least three pupils sharing one textbook. The pupils have no access to these books when they are not in the classroom.

8. The new textbooks have been simplified when compared with the old ones. All the same, there are some topics which have been pointed out as being relatively hard to grasp:

a) Find the missing number (Book I)

eg. $7 + \underline{\quad} = 18$

b) Addition by carrying over (Books I and II)

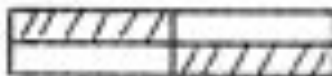
eg. $27 + 19 =$

c) Subtraction by borrowing (Books I and II)

eg. $45 - 18 =$

d) Fractions (Books I, II, III and IV)

eg. 1. What fraction of the rectangle below is shaded?



eg. 2. $\frac{2}{3} - \frac{1}{3} =$

e) Problems involving addition, subtraction, multiplication and division of money (Books I - IV)

eg. 1. How many 20 shillings are there in 100/ =

eg. 2. Compilation of expenditure (e.g. on shopping)

- f) Word problems in general (Books I - IV)
- g) Plane figures - finding the area, parameter/circumference
- h) Measurements - weight, length/distance, time and volume (Books III and IV)
- i) Statistics - drawing and reading histograms (Book IV)

Most of these topics were covered by the achievement tests. The performance of the pupils in the tests clearly shows that pupils had not understood the topics listed above. A few teachers could not tell the right answers for problems on fractions. However, teachers gave the following as reasons for their failing to teach the listed topics effectively:

- a) Non availability of the teachers' guides
- b) Lack of seminars on the new books
- c) Insufficiency of textbooks in most of the primary schools

9. The majority of the teachers (95 %) have never attended seminars on the new books though all of them are interested in attending the seminars.

G. Overview/summary

Most of both the text-book-specific and general observations of the book-users in the field as presented concur with what the research team thought of the books before or after going to the field. However, there are some difference worth noting.

1. Although the researchers agreed that the problems (or exercises) given in the pupils' books were not enough, they believed that it was the duty of teachers to compose extra questions, and that this should be explicitly stated in the teachers' guides. In other words, they were of the opinion that the pupils' textbooks should be as self-sufficient as possible, without depending on the availability of the teachers' guides which in turn should offer a deeper and wide (extra) knowledge to the teachers than what the pupils' books offer.

2. Although teachers mentioned non-availability of teachers' guides, the shortage of textbooks and lack of orientation for teachers on the use of the new books is what led to ineffective teaching, the researchers noted that, apart of these or even without these, the shortage of exercise books and pencils/pens, was a serious bottleneck for pupils when they wanted to do exercises.

3. The researchers, unlike the teachers, did not look at the new books as simplified; rather, as far as they were concerned, what looked like simplification was actually the removal or exclusion of topics which had been cancelled from the old syllabus such as 'sets'. In fact, to them the older books were somewhat simpler, they were more self-sufficient as pupils' textbooks because explanations were given to introduce chapters and even exercises.

H. Recommendations

It would seem that the mathematics teaching/learning process can be made a success by improving the quality of the books and that of the teachers. In addition to this, the environment itself must be conducive.

Now, from the observations it is suggested that in order to improve the quality of the books the following should be done:

1. Explanation and many examples should be given in the pupils' books before listing down the problems for every chapter/exercise. This will enable the teachers, pupils or other people who want to help the pupils at home to study the textbooks even in the absence of the teachers' guides.
2. More problems for exercises and for revision must be added to cover all possible basic concepts. Note that at present most of the teachers (over 90 %) cover the books before the beginning of the last quarter of the year. Thus, it is advisable, in connection with this, to specify the time required to cover a given topic or chapter either in the syllabus or the teachers' guides.
3. Chapter 8 in book II (or, better, that part of it which requires a pupil to find, say, the number of 30 shillings in 100/ =) should be taught only after having taught division. It is, therefore, advisable to shift this portion to chapter 4 of book III.

Improvement in the quality of books must be coupled with their availability at schools. Furthermore, whenever new books are sent to schools, they have to be accompanied by their respective teachers' guides. Some other reference books should be indicated either in the textbooks, the teacher guides or the syllabus. Seminars should be held at regional or district levels to enlighten the teachers on the topics which they think cannot be grasped very easily.

While it is important to have the quality and the quantity of the contents increased, it is equally important to improve the quality of the covers and bindery in general. The covers are hard but could be made harder. The colour of the covers of the pupils' book should be the same as that of the teachers' guide covers to avoid confusion when sending the books to schools.

As good as the exercise was, it is expected that the necessary steps suggested will be implemented of the four books researched on. More important is the fact that limitations which have been noted in these books should be minimized when producing new books for standard five, six and seven.

3.4 Evaluation of English books

A. Historical overview of English teaching

The teaching of English as a foreign language in Tanzanian primary schools dates as far back as the colonial days. It has undergone changes along with textbooks used hitherto. The Old Oxford English Course textbooks were the pioneers, when English was taught from primary V. The textbooks were designed in such a way that they could cater for primary and secondary schools in all British dependencies. As such they had elements which were irrelevant to the cultural milieu of Tanzania and East Africa for that matter.

When the wind of change swept across the British dependencies in the late 1950s and early 1960s, the need to have more relevant Primary English textbooks for East Africa was rife. So, the New Oxford Course for East Africa came into being. The textbooks were so designed as to fit the East African culture. English was taught from primary III to primary VIII (later, 1967/68, to primary VII) as a subject. It was used as the medium of instruction in primary six, seven and eight. Each pupil's book was accompanied by a pertinent teachers' book. In Tanzania, efforts were made to ease the English teacher's burden of preparing to teach English in the lower classes by compiling a teacher's English handbook which had lesson notes prepared to cover the entire year's work. All the teacher had to do was to glance over the notes, collect the required teaching materials, and go to teach.

By 1970, Tanzania felt the New Oxford English Course for East Africa was inadequate to prepare Tanzanian youths to use English in pursuance of the nation's policy of socialism and self-reliance. A new English language teaching policy was initiated. English as a foreign language had to start in primary I onwards. Primary English books relevant to the Tanzania policy of socialism and self-reliance were to be authored. A new series, the English for Tanzanian schools, came into being. Unfortunately, the textbooks had to be authored and used in a hurry.

The end result was that most books were too difficult to be grasped by students at diverse levels, particularly the last two years of primary school.

More recently, toward the end of the 1970s, it was widely debated whether it was fair to subject primary I and II children to learning two "foreign" languages, English and Kiswahili (to most rural children, Kiswahili is a second language which has to be learned upon entering primary I). Besides, the difficult nature of English for Tanzanian schools textbooks was felt all over the nation by especially the less able academically and by training. Hence, the 1980s ushered in the policy of beginning to teach English in primary III instead of primary I; and the introduction of new English textbooks, the Primary English for Tanzania (PET).

Currently, according to the official syllabus, English teaching in Tanzanian primary schools aims at equipping pupils with the

four natural skills for language mastery—understanding (through listening), speaking, reading, and writing skills — so that upon completion of primary education they can use these skills to read and understand English books, newspapers, magazines, signs and the like; to pursue further education and training where English is the medium of instruction and to communicate with other English speaking people socially, at places of work, or in pursuance of trade and commerce. This is what is stipulated in the syllabus. Unfortunately, by the time of the research, no school visited had received a copy of the syllabus. It is the researchers' view that teachers had started using Primary English for Tanzania blind of what the target of their work was. Hence they had put emphasis on some skills more than on others. Researchers noted that oral reading had been mastered very well by most pupils whereas other skills, for example, understanding (listening), comprehension and writing were generally poorly mastered.

The teaching method used extensively is the audio-lingual method. But most teachers do not use it to its fullest benefit for several reasons. Many teachers lack the training in the method. They did not absorb it during their pre-service training and, unfortunately, they have had no chance to learn it through in-service training. Teachers have not been exposed to the methods and techniques of using PET books in teaching English. Besides, classes are so large that teachers' efforts to use the audio-lingual method reach just a small fraction of their students. This thwarts teachers' efficiency to use the method. There is also the question of exhaustion on the part of the teachers. The method demands a lot of energy — the teachers have to jump here and there to appoint participants; they have to ask numerous questions and repeat numerous sentence structures or words etc; and they have to be on their toes throughout the periods. The end result of all these hurdles is that students hardly manage to learn the listening and speaking skills. When they come to the reading skill which is largely dependent on the first two skills they stumble through the passages and comprehend very minimally. The final skill, writing, depends on the first three skills. One normally writes about what one knows. One knows what one has understood (through listening, speaking and reading). Thus teachers' failure to utilize the audio-lingual method effectively leads to students' failure to master the four skills which are necessary for effective learning of a foreign language.

B. The textbooks used from Primary III to VII.
(Primary English for Tanzania) — (PET)

The Institute of Education in conjunction with experienced English language teachers in Tanzania has prepared/written five Primary English for Tanzania (PET) books for use in primary schools. The series start with PET 1 for Standard III through PET 5 for Standard VII. By the time of the writing of this report (April 1987) however, PET 5 is not yet available anywhere and it is said that the textbook is still in the hands of the publishers — Tanzania Publishing House. Accordingly, our report is going to cover only PET 1 through PET 4. The books have not been in schools for long time. PET 1, for example, was first printed in 1982, while PET 4 came out in 1985. Due to their

recent introduction in schools, some schools, especially those in remote areas, might have not seen some of the copies, and even for the lucky ones, their use might have been only for two or three years. Hence the views or assessments made below about the textbooks should be taken as suggestive rather than as conclusive due to the brevity of their use in schools. Participants in the study included teachers of English who had taught the PET book(s) for at least one year, and students. The students, and below average students chosen following their stance in English for each PET book.

Here only the evaluation of PET 3 will be presented.

C. Evaluation of Primary English for Tanzania Book (PET 3), 1983

1. Teachers' views on PET 3

A total of 14 teachers, eight from Iringa region and 6 from Morogoro region gave their views on the suitability and quality of PET 3. Half the number (7) based their reactions on a single year's experience with the book; five teachers had used the book for two years; one teacher had used the book for three years; and one had used the book for four years. All 14 teachers reported that they had experience either with the English for Tanzanian Schools - ETS-books (12) or with the New Oxford Course for East Africa - NOEC-books (2). Drawing from this experience, ten teachers felt that PET 3 was superior to its equivalent ETS or NOEC books, three teachers saw PET 3 inferior to its equivalent ETS or NOEC books; and one teacher was undecided.

When asked to tell whether PET 3 was readable, was presented in a logical and pedagogical sequence, had relevant examples and illustrations, was written in a fairly easy language, had a smooth progression from one level of difficulty to another, and had continuity of material between one level and another, the answers were 100 % affirmative for readability, logical sequence, relevance, and continuity. As for ease of language, 8 out of the 14 teachers said the language was easy, 5 said it was slightly difficult, and only one teacher said the language of PET 3 was difficult. Eleven teachers reported that the level of difficulty rises normally; two said it rises too slowly and one said the level of difficulty rises too quickly.

Despite lack of syllabuses in the schools surveyed, 9 out of 14 teachers estimated that between 50 % and 75 % of the students meet the stated objectives in the syllabus when the textbook is covered; three teachers felt only 25 % to 50 % of the pupils meet the stated objectives; and one ambitious teacher believed 100 % of the students meet the stated objectives. Hence the conviction of all 14 teachers that the book is either useful (7) or very useful (7). Nine of the 14 teachers believed that PET 3 is the best textbook for Standard V; but five had no comments to make in this regard.

The teachers were also asked to point out those parts of the book which were either difficult, or unclear, or needed correcting and why. Six teachers cited Units 2, 3, 4, 5, 7, 8, 11 and 15 randomly as difficult parts of the book. There was no

unit cited as unclear. But one teacher cited units 7, 8 and 15 as parts needing correcting. Teachers cited difficult vocabulary and unfamiliar materials and contexts as great contributors to the difficulty of the units cited as difficult.

When asked for suggestions and comments on how to improve the quality of the book, the majority (11) had no suggestions. Two teachers suggested that exercises on tenses, comprehension and controlled composition should be increased; that the length of passages should be curtailed to enhance students' reading with comprehension; and that more exercises on free writing should be given. One teacher stressed the need to have pictures that are coloured to enhance the meaning of statements and passages, referring to colours. One teacher suggested that the size, shape and print of PET Book Three should come closer, if not similar, to PET 4 to make a smooth transition from books for the lower levels of primary school to the upper levels. He also suggested that the suggested songs must be accompanied by staff-notations so that some teachers or other persons who have studied music can aid the English teachers in singing and finally teaching the songs.

In summary, 71.4 % of all English teachers surveyed see PET 3 as better than any other English textbooks previously used for Grade V. The majority of teachers (57 % - 100 %) rate the quality of the book very highly. Only a few teachers (7 % - 49.4 %) believed there are sections of the book which are deficient and need rectification. Inadequacy of exercises in general, lack of provision for free writing skills, unnecessarily long passages for reading, lack of coloured pictures, and lack of guidance as to how teachers should go about teaching the suggested songs are apparently deficiencies which need rectification.

The researchers analyzed the content of PET 3 rigorously. The content meets the specific objectives for Standard V English quite adequately. It is logically presented; relevant to many learners' environments; easy enough for the grasp of most Standard V students; and possesses continuity of content. However, it has some glaring deficiencies which, if put right, will enhance the quality of the book further.

The researchers agree wholly with the minority view points given by some teachers regarding the need to increase the number of exercises, the modification of reading texts so that they are shorter and more easily comprehended, the need to provide some facility for free elementary writing (although this is not provided for in the syllabus), the need for clearer pictures that send messages home quite accurately, and the need to facilitate easy teaching of the songs suggested in the textbook. Besides, there is dire need to edit the book carefully. There are flaws in content, for example, no Tanzania student goes to school by aeroplane. Thus it is ridiculous to include the sentence "They don't go to school by aeroplane". Sometimes the book contradicts itself - vide page 9 where Saturday is listed both as non-working day and half-working day. On pages 80 and 91 the bad bird seems to have been eating paddy plants and not real paddy! The picture, however, shows birds flying in to invade the paddy field. This makes the story rather untrue.

There are also grammatical errors here and there. For example, "John gets an accident" sounds ridiculous. In fact, this is literal translation from Swahili to English. Besides, it is the researchers' belief that the book is loaded with texts that are carefully tailored to meeting Tanzania's ideology of socialism and self-reliance at the expense of some light reading which is necessary for the acquisition of the stipulated language skills. There is evident lack of supplementary readers to go along with PET 3. With such a deficiency, inclusion of some good stories in the text-book is more than needed.

2. Pupils views on PET 3

Thirty-one students, 14 from Iringa region and 17 from Morogoro region, participated in this study. Researchers were particularly interested in finding out from students the availability of the book in schools surveyed; how the book is used by the students; the readability of the book; the difficult parts of the book; how the book compares with other books, if any; the level of difficulty of the book's language; and the students' ability to read; comprehend (both texts and pictures), and write answers to exercises from the book. Students were also asked to give general comments about the book and the English language.

Although 24 out of the 31 students reported that normally the book is kept in the staff-room, all 31 students said that they could easily get the textbook when they need it.

All participants reported that in their respective schools there was at least a book between four students. The students read from the book and answered questions from it especially during class period. There was some limited reading from the book done before and after lessons.

All 31 students found the letters of the textbook easy to read. But when asked whether they understood easily the language used in the textbook, 16 students answered affirmatively whereas 15 answered negatively. The difficult sections cited included units 4, 6, 8, 9, 10, 11, 12 and 14. Students pointed out difficult vocabulary and texts that were outside their experience as major reasons for the difficulties encountered in the respective difficult units.

When asked whether they had read some books other than PET books, only six students answered affirmatively. Two of the six students had read ETS books, whereas four had read others, possibly story books. Three of the six students felt that PET 3 was better than the other books read; two said PET 3 was not better than the other books they had read; and one student said PET 3 was similar to the other books he had read.

3. Pupils' ability in reading, comprehension and writing skills related to PET 3

Regarding the students' ability to read, comprehend and write using PET 3, 12 out of 24 students who were tested for reading could read fluently with scores of 50 % and above; 10 out of 26 students tested in comprehension scored 50 % and above; 5 out of 13 students who attempted the test on writing scored 50 % and

above; and 17 out of 20 students who were given pictures to interpret scored 50 % and above.

4. Researchers' overview and recommendations

Students' general comments/suggestions included the need for supplementary readers, the request that students use English only during English lessons; the need for more English periods per week; the need for enough competent teachers of English; and the need to have pictures in appropriate colours for easy interpretations.

The researchers were struck by the students' ability to read texts fluently but with minimal comprehension. This vindicated some teachers' observation that passages are too long to be comprehended easily by these beginning readers of English texts.

Sometimes the researchers resorted to some oral drill questions to find out whether students had mastered the sentence patterns used in the text so that the students could transfer this knowledge to answering the pertinent comprehension questions. But this was to no avail. Once again, this vindicated the opening remarks regarding the methods and difficulties of teaching English in Tanzanian primary schools. The availability of teachers' guides (which were unavailable at the time of the research) could have, perhaps, changed this situation. The researchers, therefore, lamented the Ministry of Education's decision to launch the PET textbooks piecemeal. Launching the programme as a completed package might have made wonders.

To minimize the cry against unfamiliar materials used in the book(s), the researchers feel strongly that texts in these English books should match with materials taught in other subjects, although in Kiswahili. Nothing for example, on National Parks should appear unless this has been covered in Geography, etc. As pointed out earlier, a good stock of exciting stories aimed at providing light reading, could neutralize the concern. Shorter passages with intensive questions for comprehension could also help much.

D. Summary of findings

The current research has revealed that both teachers and students view the Primary English for Tanzania books as superior to their equivalent English for Tanzania schools books in terms of quality. The quality surveyed hinged upon readability of the books, ease of the books' language, relevance of books' illustrations, the books' logical and pedagogical sequence, the books' progression from one level of difficulty to another, and the books' continuity of materials between one level and another. PET 4, however, was reported to have a fairly difficult language.

The findings also revealed that all PET books surveyed did meet, to a large extent, the stated objectives of teaching English in the primary schools as far as content is concerned. But the exercises in each book were deemed inadequate. Most of the stories were found to be too factual to be good for reading for pleasure. Almost every book was devoid of stories tailored to

meet light reading by students. Besides, some units were cited as difficult; others as needing editorial work; yet others, especially in PET 3 and 4, as having too long passages to be read with comprehension. Hence there was felt need to have the passages broken up into manageable shorter passages to facilitate pupils' reading with comprehension. Despite these shortcomings, PET books were said to be very useful in helping pupils learn English unlike ETS books which were more difficult for the pupils. All four PET books were said to be best suited to their respective levels of primary education.

The researchers observed that in the absence of syllabuses and teachers' guides, teachers of English are at a loss because they do not know what to emphasize and at what speed to teach. Consequently each teacher does what he thinks appropriate. This results into teachers making differentiated impact in each school. Such a practice abrogates the teachers' response(s) that their students meet 50 % or more of the stated objectives of teaching English in the primary schools. The limited experience of the teachers with PET books doesn't help. Students' responses that the books are easy to follow and facilitative of their learning of English were also debated by the researchers. Judging from the results of interviews, reading, writing, and comprehension tests given to students, there is much doubt that their responses are genuine. In fact, there was every evidence that very few students meet the stated objectives for teaching English in the primary schools.

The researchers noted the spelling, grammatical, pictorial, and the like errors as signs of hurried authorship of the books. They also noted with concern the absence of word glossaries at the end of each book. In this era, where a dictionary cannot be obtained easily, this is a serious omission. They observe the problems of group authorship and noted the Ministry of Education's and the Institute of Education's misguided belief that the experience to teach English is enough to make one an author of English textbooks.

E. Recommendations

In the light of the study's findings, the researchers made the following recommendations:

1. In future, a series of textbooks intended for the teaching of English should be authored by experienced English textbook writers; tested in the field for at least one year before final modifications and official launching; and they should be launched as a complete package not piecemeal like the current and previous practices.
2. To alleviate the current deficiencies, the English syllabus and the teachers' guides for all PET books should be supplied to the schools along with remaining PET 5 pupils' books.
3. Teachers should give priority to the listening and speaking skills by providing intensive oral practice to pave the way for the reading and writing skills. In the later skills teachers should supplement the meagre exercises provided by using other exercises carefully chosen from other sources.

4. There should be provision for carefully selected supplementary readers to fill the gap left by the lack of materials for light reading that is evident in PET books.
5. There should be mounted a longitudinal study of the PET books with an eye to improving them in the light of data obtained. Inclusion of word glossaries may, for example, be found a necessary element in the new editions.
6. Currently, teachers of English who have had no exposure to PET books in their pre-service training should undergo a short in-service course/seminar on how to teach PET books. This would equip the teachers with the necessary tools to surmount most of the deficiencies revealed by the current study.

3.5 Evaluation of Kiswahili books

A. The new Kiswahili books and their objectives

Apart from the major objectives of primary education, Kiswahili teaching in schools emphasizes permanent ability in literacy (reading and writing), an inquiring mind and socialist attitudes to go along with the other objectives of primary education. The 1969 syllabus was then designed to cater for those objectives, and provided, *inter alia*, suggested topics to meet the objectives, grade vocabulary and structures to cover the whole range of the primary school. Textbooks were then produced in line with the syllabus and the stated objectives.

As time went by there were feelings in favour of the overhaul of the books, partly because of the general cry of falling standards in education, in this case in reading and writing, and partly due to the political changes, particularly after 1977. The Institute of Education was entrusted with such changes, and at the time of this survey the following textbooks were already in schools to replace the former textbooks.

- Kitabu cha Kufundishia Kusoma na Kuandika, 1983
(The Teaching of Reading and Writing, Grade One)
- Kitabu cha Kufundishia Mwandiko, Darasa la Pili, 1983
(The Teaching of Handwriting, Grade Two)
- Kidatu cha Picha, 1986
(Picture Book, Grade one)
- Kusoma Kitabu cha Kwanza, 1986
(Reading Book One, Grade One)
- Kusoma, Kitabu cha Pili, 1984
(Reading Book Two, Grade One)

The analysis that is going to follow will be based upon the five books above, and will include: a) their content analysis in relation to the objectives and the syllabus; b) teachers' observations, and c) pupils' experience with the books.

B. Pre-fieldwork content analysis by researchers

One of the major changes in the new books was the approach adopted to the initial teaching of reading and writing in Grade I. The former books put emphasis on the whole word and sentence methods for meaning and comprehension followed by the syllabic method. The alphabetic method was applied when teaching handwriting and writing. The new books, on the other hand, are emphasizing the alphabetic method in both reading and writing followed by the alphabetic, whole word, syllabic and sentence methods.

Word count from Kusoma na Kuandika shows that there are 464 words 224 of which are from the Grade I vocabulary in the syllabus. The rest are either from higher grades or have just been used for convenience. One tends to question the linguistic relevance and the levels of such words to the pupils.

Kitabu cha Picha has 71 pictures, 59 of them are from the Grade I vocabulary of the syllabus. The rest might have been included here for convenience sake. Such a book should have not only selected pictures with words from Grade I vocabulary, but it should also contain pictures that would produce the required concepts (meanings) common to the majority of Tanzanian Grade I pupils. Some of the pictures in the book are showing phenomena which are unusual in most parts of Tanzania. In other cases, the drawings are bad, such that even an adult will hardly decode. Lastly Kitabu cha Picha (1986) should have been produced the same time as Kusoma na Kuandika (1983).

There is no problem with the choice of topics in Kusoma Kitabu cha Kwanza and Kusoma Kitabu cha Pili. Most of them have been drawn from the syllabus. The rest appear to be relevant to the pupils so as to meet the objectives. However, there are several points that have to be raised.

1. One expects that most of the words found and taught from Kusoma na Kuandika would appear in the reading books, particularly in Book I. On the contrary, a number, sometimes most, of the words on any page of the two books are new, particularly in meaning, although some of the syllabus have been taught in one way or another.

Along the same lines Kusoma Kitabu cha Pili has 24 new words out of 91 words on pages 1 - 2, and 50 new ones out of 124 words on pages 19 - 20. Such is the tendency throughout the pages or topics in both reading Books I and II. Even if we take for granted that the teachers' books will have some room to teach all those words and structures, still those are too many for Grade I pupils and will result into reading problems.

2. For those words that have been used from Kusoma na Kuandika there is imbalance of their appearance in book One or Two. While just a few words have been used more than ten times the majority of the words taught do not appear at all.

3. Some words contain dual concepts and should not have been used at this stage. Some words were taught in one way in Kusoma na Kuandika while they appear differently in Kusoma Kitabu cha Kwanza.

4. There are difficult concepts that derive from the use of certain constructions, such as, the -ni ending which could imply "in" "on" or "by". Such a construction should not have come early in Reading Book I.

5. According to the syllabus, a passive structure is too difficult for the Grade I pupils.

6. The use of the tense shows inconsistency particularly when more than two tenses are used in the first pages of Book I.

7. The sentence length is also a concern in Grade I. Normally sentences should not exceed 6 words. However, in both Book I (Reader) and Book II there are several sentences with more than 6 words.

8. It is very unfortunate to find out that Kusoma Kitabu cha Kwana and Kusoma Kitabu cha Pili were produced and distributed to the schools without their teachers' guides. Worse still, the schools were told to use the books as soon as they received them.

There is a direct relationship between Kusoma na Kuandika and Kitabu cha Picha in that the latter comes in with Part Two of the former. But nowhere in both books is the teacher told when and how to use the two books together.

Kitabu cha Kufundishia Mwandiko (Grade II) is more of a workbook than a guideline for the teaching of cursive handwriting. There is more of writing capital letter than the teaching of cursive writing of the small letters. It is understood that each letter has its specific shape in cursive writing. The book has no such guideline. Moreover, some of the exercises are too long and difficult also, and they would need the teaching of the language first before the pupils could write meaningful passages. Again the book, as it is, does not allow for flexibility for the teacher to use local resources such as local place and pupils' names to make the writing more interesting and meaningful.

Some other points found from the content analysis of the books are that there is no consistency in writing some of the words. The characters on the cover of Kitabu cha Kufundishia Mwandiko are suitable for Grade I (half cursive) and not for Grade II which uses cursive writing. In some cases the texts and the pictures do not correspond.

Furthermore pupils' questions at the end of each chapter in Kusoma Kitabu cha 2 do not go beyond their ability to remember facts. If that cannot be corrected here, then the teachers' book should also provide such questions as would require higher levels of thinking so as to meet the objectives of primary education (enquiring mind, ability to think, solving problems, socialist values ...).

C. Overview of teachers' views from observations/interviews

From the interviews it was revealed that the total number of Kiswahili periods per week for Standards I and II ranged from 7 to 15 periods a week respectively. The range of periods per skill was 1 to 4 for language, 4 to 6 periods for reading and 4 to 6 periods for writing.

The class sizes ranged from 27 to 65 pupils. The number of textbooks seemed to be small and as a result between two and three pupils shared a copy. In addition to the textbooks, most teachers used cards when teaching words, syllables, letters or pictures and real objects. These cards were prepared by the teachers from manilla sheets.

Commenting on usefulness of the new books on the basis of their previous experience, all eighteen teachers interviewed said that, in general, the books were good in terms sequence, writing skills, words or vocabulary and sentences. However, about three schools had either not received the picture books or had received some copies but had not started using them. It was further pointed out that some of the pictures in the picture book could not be understood easily by the pupils.

In their response to the question on the type of problems they had experienced in using these books, they said that there was nothing wrong with the books except that some of the text did not match with the actual pictures in the books. Asked to give their views on the use of the suggested teaching/learning strategies for the teaching of reading skills, the teachers said they were satisfied with them. This is because when they used them along with their previous teaching experiences they found that their work became easier than before and their pupils understood the lessons better.

Reacting to the question on the use of the suggested teaching/learning strategies for the teaching of writing skills, some teachers said that the strategies helped them to enable their pupils to acquire writing skills. They pointed out that the specimen given for the teaching of writing skills were understandable. But some teachers were not satisfied with these strategies because their pupils were provided with exercise books type B instead of A which is specifically designed for pupils' written work in writing skills. Others argued that the suggested teaching/learning strategies in that book had inadequate guidelines.

D. Overview of teachers' views based on interviews

From the teachers' views based on the interview, it is evident that there is no uniformity in the number of Kiswahili periods per week as well as the number of periods for this subject allocated to each of the three skills, namely, language, reading and writing per week. This indicates that the teachers lack guidelines because they do not have a Kiswahili syllabus on which the new Kiswahili set of books could be based.

The problem of distribution of books was also observed by the researchers. At the time of the research some schools had not

received any copies of picture books. And those schools which had received some and had started using them had been experiencing some ambiguity in the use of the same. The main problem was, in the case of the picture book, concerned with the lack of clarity on the part of the pictures drawn to represent certain objects or events. Another observation was on the text not matching with some pictures intended to represent certain objects or to portray certain events. Another problem reported concerned the inadequacy of class textbooks that resulted in a number of pupils sharing a single copy.

Moreover, while most teachers were satisfied with the suggested teaching/learning strategies for the teaching of reading skills they were unhappy with those suggested for the teaching of writing skills because of inadequacy of exercise books of type A recommended for pupils' written exercises in writing skills.

On the basis of these findings it is strongly recommended that a Kiswahili syllabus be prepared by the authorities concerned in order to alleviate the problem of the lack of uniformity in the number of Kiswahili periods per week. Various ways of distributing adequate textbooks efficiently to various schools should be devised and used effectively. The picture book should be revised in order to make most of the pictures understandable to both the teachers and the pupils. When revising any of the books already in use in the classes, care should be taken to make sure that the text matches with the objects or events intended to be portrayed by the picture.

E. Teachers' assessment of textbooks for Grade I (Kusoma Kitabu cha I na II)

The teachers who responded to the questionnaire concerning the quality of the textbooks had experiences in teaching Kiswahili ranging from a 1/4 of a year to 18 years. As for the teachers' dates of commencement to use the textbooks in Standard I, there was a variation. This variation was caused by the new textbooks not being distributed to the Regions/Districts and schools immediately after they had been printed.

Before they began using the new textbooks, they had been using 'Kitabu cha Kwanza cha Kusoma' (Reading Book I), Kitabu cha II cha Kusoma (Reading Book II), 'Kusoma Kiongozi cha Pili (teachers' guide for language book). In regard to the provision of in-service teacher education courses to teachers, only 6 teachers out of 15 said they had attended in-service courses before they started using the new textbooks. Reacting to the question whether or not the content of the new textbook 'Kitabu cha Kwanza cha Kusoma' (Reading Book I) was suitable or unsuitable to the primary Standard I pupils in comparison to that contained in the previous textbooks, 8 teachers who had been using it said it was suitable. While 3 responses from among those teachers who had been using both books 'Kitabu cha Kusoma cha I na cha II' (Reading Books I and II) indicated that it was suitable and there were 3 who were undecided.

When asked to make suggestions on how to improve on the content of the book, 4 teachers suggested that teachers should be

provided with teachers' guides for the new book. Secondly, some teachers suggested that teachers should be provided with in-service teacher education course on how to use the new textbooks before they begin using them. Moreover, it was suggested that a book known as 'Soma kwa Hatua 1-2' (Read Step by Step 1-2) which was used formerly be used in Standard I before 'Kitabu cha Kwanza cha Kusoma cha I' (Reading Book I) is used. It was also suggested that pictures depicting certain concepts or representing certain objects or events should be clearly drawn so that they convey the information intended. Lastly, although not the least, there should be more written exercises in these books in order to give the pupils more practice in writing skills.

When responding to the question on the adequacy or inadequacy of the content in relation to the Kiwahili syllabus for Standard I, fourteen responses indicated that it was adequate and only one responses indicated that it was not. Unfortunately, neither of the two groups gave reasons to support their stand.

On the question whether or not the content of the reading books I and II was related to the pupils' environment, socio-economic status, school location, familiar objects and the occupations of Tanzanians, most responses with exception of two indicated that it was.

However, some of the responses indicated that the Reading Book I had some stories which they thought was not related to pupils' environment. In the Picture Book for Standard I of primary education some stories were also considered unrelated to the pupils' environment. Some of these aspects of the content were considered unrelated to the pupils' environment because geographical factors as well as the subcultures of the Tanzanian society and unclarity on the part of the pictures that were somehow badly drawn.

Furthermore 12 respondents indicated that their Standard I pupils found that it was difficult for them to understand some of the pictures.

The teaching of 'fy' - 'f' sounds was also identified as being difficult for the pupils' to learn. Although 4 teachers said they did not experience any problems in using the new books, the rest said they had problems. They said they experienced problems in teaching sounds such as 'th and 'dh'.

Reacting to a question on the sequence of the content of the book/books, 13 respondents said that it was good particularly for sentence reading. Expressing their views on the language level of their pupils, 14 of the respondents said that the language was appropriate to the level of their pupils. And 9 respondents said that none of the topics were incomplete. Only 2 out of 15 respondents said the topics in the books were not related or linked to each other. Then there were 11 respondents who said that the suggested teaching/learning strategies were adequate.

Responding to a question on whether or not the new books were beneficial to their pupils, all the respondents said the books were useful. They argued that the topics were relevant to the

pupils' environment. Secondly, the books enabled the pupil to acquire reading skills within a short time. Thirdly, the pupils were enabled to recognize letters, syllables and to build words such as 'a' 'b' -- 'z'. But they pointed out that the lack of teachers' guide put the teacher in a disadvantageous position.

Commenting on how the new books were helping them in their teaching, all of the respondents said that the books were beneficial to them. For example, they pointed out that the books were concise and, by using them they had acquired teaching/learning strategies on how to prepare their lesson plans and to identify pupils with reading problems.

In summing up, they viewed the books as being suitable for the level of their pupils' ability. But they suggested that the pupils' copies should contain shorter words than they had. They should also have a list of vocabulary and examples of structures and adequate comprehension questions for pupils in order to help the teachers in the teaching/learning process. They also recommended that the number of pupils' copies should be increased in order to reduce the pupils' burden of sharing a few copies available and that teachers' guides be made available to schools.

The Teachers' Assessment of 'Kitabu cha Kusoma na Kuandika' and of 'Kitabu cha Mwandiko' will not be presented here.

F. Pupils' experiences with new books

Since this survey was done at the beginning of the year, the most that could be done was to test Grade I in picture recognition and understanding from Kitabu cha Picha even though the pupils had not used them. Along the same lines, reading tests were administered to Grade II pupils based on Reading Books One and Two which they had covered the previous year.

There were 39 Grade I pupils from rural schools and 30 pupils from urban schools who did the picture recognition test. The pictures were divided into two sets, one from odd number pages (for 27 rural and 24 urban pupils) and the second set from even number pages (for 12 rural and 6 urban pupils). There are 36 pictures from the odd number pages, and 35 from the even number pages, a total of 71 pictures in all.

It is generally agreed that a good picture book is the one which at least contains pictures which are not below 70 % common among the pupils, that is, each picture should be recognized by at least 70 % of the population.

From this survey it was found out that out of the 71 pictures only 33 pictures (47 %) were 70 % and above, while 38 pictures (53 %) were below 70 % common (the figures have neglected the ratio of pupils between rural and urban schools, and the combination of both sets of pictures in all the schools).

Grade II pupils were administered with two kinds of activities in trying to collect their experiences on the new books. Firstly, they answered a few questions in connection with the

books, and secondly, they were given reading and comprehension tests on what they had covered in the previous year.

There were altogether 74 (40 rural and 34 urban) pupils who participated in one or both activities. In the first activity the survey wanted to find out answers to the following questions:

- a) Which books did they read when they were in Grade 1? The majority of the pupils responded that they had read Book 1, and a few of them had also covered Book Two. Three rural schools and two urban schools had received both books, while four rural and four urban schools had covered only Book 1. There were a total of 13 (7 rural and 6 urban) schools. Some explanation of the imbalance is that the books were not distributed in time to some areas, and some areas/districts had an advantage in the distribution over the others.
- b) Whether or not the pupils read their own or shared the books among themselves, all pupils answered that they were sharing the books. There were nineteen cases from rural schools and one case from urban schools where two pupils shared a book, six cases from rural schools and twenty-one cases from urban schools where three pupils shared a book, and a few cases from both areas (6 urban and 3 rural) where four pupils shared one book. Here again rural schools had advantage over urban schools.
- c) Where were the books kept? Six responses from both urban and rural schools showed that the books were kept in the classrooms, whereas the majority said the books were kept in the staff-rooms or the Headteacher's offices. There was not much difference between urban and rural schools in this respect.
- d) Were pupils ever allowed to borrow the books? In 51 responses one case from the urban schools was positive; the rest (29 urban, 21 rural) were negative. Surely, with the existing circumstances - few books and poor maintenance facilities - there was little chance for any borrowing.
- e) What did they like best from the books? Two cases from the urban schools and seven from the rural schools said they liked the whole book; seven cases from both liked most of the book, and several cases had similar interests from both areas.
- f) What did they dislike from the books? There was a common agreement on dislike for, for example, pages 9, 25, and 32 from Book One, and a number of topics from Book Two. Some pupils expressed quite good reasons for the dislike, such as a python being a dangerous animal.
- g) What other books had they read besides the textbooks? Several schools from both areas were using the former series (Juma na Rosa Books 1 and 2) as supplementary readers. Two cases from the urban schools were using Soma Kwa Hatua, and seventeen cases from the rural areas had no supplementary readers. Because the new books came in without their teachers' guides some schools used them as supplementary readers, and continued to use the old

books which had both the pupils' and teachers' copies, from Grade I through Grade VII.

The second activity consisted of reading and comprehension tests. The pupils were first asked to read selected passages (topics) depending on how far they had covered Book I or Book II. Failing that, the pupils were asked to choose their own passages. After the reading the pupils were asked a few questions to test their memory, understanding and reasoning capabilities.

The pupils who were recorded as fluent readers were only 19 (10 rural and 9 urban), and, as far as the comprehension exercise was concerned, only 26 pupils (13 rural and 13 urban) were graded good or very good. There were 10 pupils (6 rural and 4 urban) who were complete failures, that is, they were unable to recite even a single word. Along with these, there were 5 (4 rural and 1 urban) pupils who were rote readers.

Among the common reading problems found from both rural and urban schools, and almost at the same rating was the inability to recognize some words, particularly those that were long. The pupils either failed completely to recognize the words, or merely recognized parts (some syllables) of the words. Interestingly, all the above examples are those words which did not appear in the previous book.

Another reading difficulty which many of the pupils experienced was slowness, where each syllable was read independently of the others in most of the words, and where pupils used their fingers to follow the syllables as they were read; at times, one could even hear the separation between a consonant and a vowel. This difficulty is probably due to the whole approach of teaching reading. Pupils first come in contact with parts of words (letters then syllables), such as a and b followed by ba and ba - ba. Without proper guidance the tendency will be to read ba as ba - ba, or even as b-a-b-a as some pupils did.

Repeating parts or the whole of words was another common problem among the pupils. During the same process there were also cases of addition or omission of sounds.

Another problem was that of substituting words, particularly when the words were similar in shape. Normally this happened when a pupil recognized nothing else but the shape he had learned, or when he had to make a choice (when not sure) between two objects or actions that he knew.

An obvious explanation to this problem could be the fact that the pupils opted for those words they had learned before or for words that were more familiar to them, because of the similarity in their shapes. Their counterparts in the text were words that had not been taught before.

Mispronunciation was a common problem too, and not unusual to the Bantus. Common areas were the r/l pairs.

G. Summary of observations

1. General

Change to new books was done, assumably due to falling standards of education particularly in writing and reading.

All the five books are for Grade I, except one which is a handwriting book for Grade II.

The major change was in the technique of teaching reading and writing, in which the emphasis is first in the alphabetic method whereas the former series put emphasis on the whole-word method. The other salient change was the inclusion of stories in the reading books which have different characters instead of Juma and Roza of the former books. Following then are the observations of the researchers, teachers and pupils on the five books.

Kusoma na Kuandika, 1983

(i) About half of the vocabulary (224 out of 464) is from the Grade I syllabus, the rest is from higher grades.

(ii) On the whole the teachers said that the book was suitable, and the content adequate and relevant to the pupils. However, the teachers found difficulty in teaching some vocabulary.

Kitabu cha Picha, 1986

(i) The book has 59 out of 71 pictures from the Grade I vocabulary.

(ii) Some of the pictures are not common to all Tanzanian pupils, they are complex or they are badly drawn.

(iii) Nowhere in the book, or other places, is it shown how to use the book, neither is it mentioned whether the book is for pupils or teachers.

(iv) Seemingly, the book is a comparison to Kusoma na Kuandika, but as indicated in (iii) above, there is no guideline on how to use it.

(v) Most schools received the book late in 1986; some had not seen it. In all cases there were only a few copies for the teachers.

Kusoma Kitabu cha Kwanza, 1986

(i) Most of the topics have been drawn from the syllabus, the rest are also relevant to the level of the pupils.

(ii) Contrary to expectations, reading topics contain many words which have not been taught before in Kusoma na Kuandika, or in Kitabu cha Picha. The situation is the same throughout the book.

(iii) There is an imbalance on the use of the basic vocabulary taught in 'Kusoma na Kuandika'. While a few words have been used

more than ten times, the majority of them have not been used at all.

(iv) Some words used at this stage have dual or multiple concepts, some were taught differently in Kusoma na Kuandika.

(v) The point on difficult concepts does not arise in single words only, but also in some constructions of words and sentences. The difficulty comes in also with the use of complex structures, tenses and sentence length, the examples of which have been indicated earlier in this report.

(vi) Most teachers (8 out of 15) thought that the book was suitable, the content was adequate and relevant to the pupils' environment.

(vii) Negative observations showed that some of the topics were irrelevant to pupils in some areas of Tanzania.

(viii) All the teachers pointed out the inadequacy of the pupils' book, the absence of the teachers' guide, and an improper distribution system.

Kusoma Kitabu cha Pili, 1984

(i) All the observations raised under Kusoma Kitabu cha Kwanza concern also Book Two. New words under every topic/chapter are numerous; use of the basic words diminishes in this book; there are sentences with 10 to 16 words; and there is the same problem of lack of correspondence between some texts and their pictures.

(ii) The questions after every topic tend to train the memory aspect only of the pupils.

Kitabu cha Kufundishia Mwandiko, 1984

(i) The observation of the research team is that this book is more of a workbook than a guideline to the teaching of cursive handwriting. The problem of the teachers' guide to the teaching of handwriting still remains.

(ii) The book is divorced from other language activities, that is, composition and reading. Some of the passages are too long and difficult for the pupils to manage and grasp.

(iii) Since this is a teachers' book what the pupils are taught is actually a particular teacher's handwriting rather than the handwriting taught in this book.

(iv) The book had reached very few schools (3 out of 16 schools), and those who used it said it was a suitable book, although there were problems with joining some of the letters and that the pupils lacked proper exercise books for the writing. Some teachers who were interviewed thought also that some of the exercises were too long, and caused some strain for the teachers when writing them on the blackboard.

2. Pupils' experiences

(i) Reading tests and interviews were made on Kitabu cha Piche for Grade I and Kusoma Kitabu cha Kwanza na cha Pili for Grade II pupils.

(ii) Findings from Grade I reveal that few pictures (about 47 %) were common (i.e. known to 70 % and above of the pupils), while the rest (about 53 %) were not; and that the most uncommon pictures were 14 of them, ranging from 0-19 %.

(iii) It was assumed that some of the reasons for most of the words being uncommon derived from the way they were depicted, the pupils' environment, and their own concepts of the pictures.

(iv) It was assumed that some of the reasons for most of the words being uncommon derived from the way they were drawn, the pupils' environment, and their own concepts of the pictures.

(v) Findings from Grade II pupils have revealed that the majority of them had covered Book I and a few of them had gone through Book Two due to improper distribution; the books were so few that they had to share among themselves (between 2 and 4); the books were either kept in the staff-rooms, the Headteachers' Offices or in the classrooms, and none said that they were allowed to borrow the books; most pupils indicated that they liked the whole book or most of it; there were also cases of similar interests in both books, and a few common cases of dislike of some topics from the two books; and that, apart from using the former series and one or two other titles as supplementary readers, most cases were not using supplementary readers at all.

(vi) As for comprehension and reading techniques, only a few of the pupils (19 out of 74) were recorded as fluent readers, and 26 pupils were graded as good and very good in comprehension. Ten cases came as complete failures, and 5 pupils were mere rote readers. The rest had reading difficulties which comprised of inability to recognize some words, repeating of parts or whole of the words, slow reading (syllable by syllable), omission and substitution of sounds, and mispronunciation.

H. Conclusion

From all of the above observations, surely there are good and bad aspects of the books. The teachers feel that the books are good because they contain better strategies for learning and teaching, they are appropriate (content- and linguistic-wise) to the levels and environment of the pupils. On the other hand, the teachers felt the absence of the teachers' guides and proper training of using the books. They were also not happy with the way the books were distributed, the quantity of the books received, and with some of the content.

A deeper view into the books showed that it was not necessary to have major changes when the syllabus remained intact. The changes appear to have been done in a hurry, as it was inappropriate to distribute incomplete series, and particularly when

the linguistic factors were not taken care of. As such, some serious work has to be done to these new books before any further revisions of the remaining books are made.

I. Recommendations

1. Books (textbooks) should always be produced on the basis of the syllabus. If there are major changes required, then the syllabus should come first.
2. Thorough research of the existing books and conditions should be undertaken before any such important adventure is made.
3. Pupils' need and interests are of utter-most importance, particularly in language. There is need therefore to find out what content (e.g. in the Picture Book or Readers) would suit best the majority of the pupils.
4. Pupils' books and teachers' guides should be produced and distributed together, and it is important to wait for a complete series before a mandate is given to use the new books (NB. All the schools reverted to the former series after Grade I, as there were no new books ready for Grade II.)
5. It is obligatory that all teachers concerned are oriented on the use of the new books so that there is uniformity in their use.
6. There should be enough copies of textbooks and other resources for every pupil in all the schools if the language skills are to be fully mastered.
7. It is suggested that the current Kitabu cha Picha should be revised to cater for (3) above, that the book becomes a pupils' textbook, and that a thorough teachers' guide be produced to go with it. Expert drawing is also needed for some pictures to come near to reality.
8. In connection with (7) above, it is suggested that Kusoma na Kuandika be revised so that it incorporates Kitabu cha Picha.
9. The rest of the books would also need some revisions so that the content, the vocabulary, the structures and the sentence length are in line with the pupils' levels.
10. Handwriting is a composite activity in language teaching. The content should, therefore be part of what the pupils are learning in composition and reading.
11. It is suggested that Kitabu cha Mwandiko becomes a pupils' workbook, and a proper teachers' guide be produced for not only the cursive writing in Grade II, but also the print writing in Grade I.
12. When a technique is used to teach reading and writing, in this case the emphasis on the alphabetic method, care should be taken to place the same emphasis on other methods (word,

syllable and sentence) in order to avoid reading problems as revealed in this report.

13. In connection with (12) above, Kusoma na Kuandika needs some revisiting.

4 OVERALL SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

4.1 Summary of findings

Although it was the research team's original intention to assess books used in Grades IV, V and VI, it could not do so except for geography and science. This was so because geography had the entire series launched into schools while the science series was complete for all but one grade (starting from Grade III) and the rest had far more incomplete series; Kiswahili had produced books only for Grades I to IV.

1. Rationals for launching the new series

The launching of the new series of books was based upon a change in the syllabus and/or upon discontent with the quality of the old books in use. Thus whereas the new geography and maths textbooks reflected a change in the old syllabus, those of Kiswahili reflected the resolve to adopt a new approach to the teaching of reading and writing skills in a effort to stop the allegedly declining standard of education. The new English textbooks resulted from change in the point of start (Grade level) in the learning of English and the realization that the older book series, which began in Grade I, was too difficult. In science simplicity presumably was what was sought in the introduction of the new books.

2. The writing and distribution of the new series of textbooks

As mentioned above, this was done piecemeal. In this regard, among the five subjects only geography has over 5 years (1976-81) put onto the field the entire series of the new books starting from Grade III; the rest have incomplete series and started production much later than geography. Thus science launched its series in 1983 starting from Grade I. Maths launched its series in 1982 starting from Grade I while Kiswahili had its series launched also from Grade I in 1983.

The distribution of the new books does not present a pleasant picture. Thus although the geography series was launched as early as 1976 and was complete by 1981, at the time of the research the majority of schools had at best but single copies of the textbooks, usually unaccompanied by their teachers' guides; at the worst they had none. One possible explanation is that only the 1976 textbook has been reprinted several times apparently to meet the growing number of pupils and therefore of schools, but the rest of the textbooks have not. Also, given the paperback form and poor binding, the depreciation of the books, coupled by loss and general paucity of the initial or reprinted consignment sent to schools, has also contributed to the situation of disheartening scarcity.

In science, only the first two textbooks were available in schools; the third one was not. The teachers' guides for the textbooks were altogether absent.

In mathematics, books for Grades I and III were more available than those for Grade II. The choice of unmatching colours for the teachers' guides and the pupils' textbooks seemed to have contributed to the problem of maldistribution of the books in schools. Often a school had the wrong teachers' guide to the textbook received.

In Kisumu, the writing skills book for Grade II was far less available in schools than the other books. Even where it was available, the scarcity of pupils' exercise books made it practically unusable. Most of the schools had received the Picture Book late in 1986 and several had not seen it at all.

In English, no school had received the new syllabus and English books were hard to come by. Also, as mentioned earlier, teachers' guides had not been printed and so none was available in schools.

3. As a result of what has just been presented in (2) above, one found on arriving at schools a high curiosity among teachers and even pupils to find out from the researchers what the new books were like and how many they were. Many wished they were well and timely informed about the new books to enable them to aggressively look for them. Also many teachers felt baffled by the proliferation of new titles all claiming entry into the school system, making it difficult for them to tell what was really appropriate and what was not. On the whole the researchers found schools uninformed or not well informed on the new books. The research was therefore an eye-opener to them on what they should have received but missed for one reason or another.

On the other hand, the research was an eye-opener to the researchers that the information about the availability of the new books as recorded at the District centres might be outdated or in any case inaccurate. For, whereas researchers were assured of being taken by very knowledgeable inspectors to only those schools which had received and were using the new books, they often ended up being escorted to schools which actually had an acute shortage of them.

4. According to both the researchers and the book-users in the field, the piecemeal production of the book series and the poor distribution of them in schools, resulted into a problem of discontinuity in the teaching and learning process. Where the teachers missed the syllabi and/or the teachers' guides, it was difficult for them to make a proper use of the new books. This was particularly serious in language teaching. In Kisumu, for example, the Grade I Picture Book was misused or even unused while the Writing Skills Book for Grade II was used very mechanically by the pupils in the sense that they copied from it long passages they did not comprehend. And, in any case, pupils learned the writing of their teachers rather than the writing as presented in the book.

5. Besides piecemeal production and/or maldistribution of the book series, there were a number of factors which adversely affected the weight of the assessment of the new books by teachers and even pupils. These included the following. (a) The majority of teachers had received no orientation on the new

books. (b) A number of the books being evaluated had been in schools only for a short while and, therefore, the teachers and pupils had too little an experience with them. Ideally one would have liked to get an assessment of the quality of the textbook from teachers who had used it long enough and along with their syllabi, teachers' guides and accompanying teaching-learning materials. An assessment of the books by such users would have been very weighty indeed. But the fact is that such teachers were few and far between for most of the books under evaluation. (c) In addition, the time did not allow the researchers to observe teachers in the process of teaching using the books they were evaluating.

6. A content analysis of the books revealed that the textbooks were more factual than conceptual in orientation although they reflected very well the themes in the syllabi. This though, was true as far as the syllabi of ordinary schools were concerned but not of community schools. The teachers' guides matched the textbooks chapter for chapter. In the case of geography and science, the textbooks, in the view of the researchers, tended to follow the syllabus so rigidly that at times it failed to offer a richer introduction or cover some aspects of the subject that should have made the follow of the textbook more natural and interesting. In science and mathematics specifically, the textbooks usually embarked on topics too abruptly without providing background or contextual information to make them more comprehensible and interesting. In English very interesting and memorable stories such as *Abdu* were left out. This made the textbooks sound rather dry and easy-to-forget for the learners.

In connection with interest arousal the textbooks strove very much to use pictures, illustrations and, in the case of geography, maps, to make explanations much more vivid. In practically all cases, colour, so important especially for lower grades, was never used, presumably due to cost considerations. In addition, in a number of cases these pictures, illustrations, etc were found to be inadequate quantitatively and/or qualitatively speaking. In Kiswahili one found cases of mismatch between the text and the pictures which represented the reality in it. There were also cases of local cultural irrelevance of some of the pictures and illustrations notably in Kiswahili and, to a small extent, in science. In geography, where the drawing of maps and illustrations as a skill is supposed to be imparted, extra care in drawing these was not evident in several instances. Several pictures failed to focus on what they were expected to depict. In science and geography particularly it was felt that an interpretive account for each picture and map might be a very useful guide for the learners to focus their attention as well as to train them in picture/map reading or interpretation skills.

7. With reference to exercises, analysis of several textbooks showed that they largely tested simple comprehension of the text almost word for word and paragraph by paragraph. Whereas such exercises might be fine for language learning, in other subjects such exercises hardly challenged the pupils' minds to think beyond the textbook. More often than not, they were factual and of recall type.

Occasionally, the exercises were found to be quantitatively inadequate. Teachers' guides did little or nothing to supplement the exercises as given in the textbooks. Whereas in geography the teachers' guides challenged teachers to construct supplementary exercises, no examples of such exercises were given for teachers to emulate.

In mathematics specifically, where exercises form the substance of the textbook, adequate explanations prior to the exercises were completely lacking. That made it difficult for a pupil to embark on any without such guidance. In other words, and that was true for almost all the subjects, the textbook was not written with a teach-yourself orientation. Moreover, in some cases such as geography, maths and Kiswahili the exercises occasionally demanded much more than what had been taught up to the particular stage.

8. The language medium employed in the textbooks was found appropriate for all subjects except in Kiswahili where the textbook for Grade I often used vocabulary of a higher level instead of sticking to the standard vocabulary expected for that grade level. Otherwise teachers and pupils found the textbook language quite readable. In the cases of science it could very likely tempt the pupils to read the textbook as if it were a story book and so, perhaps, as mentioned earlier, give them an oversimplified notion of science as a puzzless and unchallenging subject. But even with the high readability of the textbook language a glossary at the end of each textbook was considered by both the researchers and book-users appropriate and even necessary in view of geographico-cultural diversity of the learners.

9. For each subject, teachers and/or pupils singled out areas which posed some difficulty. One could say that these were not too many to render entire textbooks very difficult. It is worth noting that, occasionally, teachers recognized the difficulties posed by the textbooks to the pupils only after some discussion with the researchers and not before. This was the case in Kiswahili where a number of teachers realized that many pictures did not succeed in imparting what they were intended to do. Also, there were certain perceptual problems or errors in the textbooks which neither the researchers nor the teachers could note but pupils could. A good example of this was in geography where only pupils saw the equivocality of some conventional signs which were thought to be univocal in meaning.

10. The concentric or spiral approach to textbook writing (based presumably on a spirally organized syllabus) in science was considered likely to pose problems to teachers and learners. Since the same topics were covered in textbooks of two or more levels, it was not easy to note the variation of the depth. On the contrary, what was more noticeable was repetition that obscured the variation in detail particularly in science book one and two.

11. The binding of almost all textbooks was found to be poor and undurable as practically all were paperbacks which were glue-bound and not stitchbound.

12. Supplementary readers were generally absent in schools. However, a handful kept libraries which were well stocked with old books including those of colonial days. Melela primary school in Morogoro rural was a good example. Several teachers admitted that they found those books very enlightening on certain themes. In addition, they broadened the horizon of both teachers and pupils. A number of teachers used the series being phased out as supplementary readers.

For all the subjects but geography, teachers had fresh knowledge of older book series as they were still in use. By comparison the new books were considered superior in readability, relevance of content, illustrations and examples, pedagogical and logical sequencing of materials from one grade to another. This was particularly true for English and mathematics. In some cases as in mathematics, the researchers did not agree with the teachers' assessment; they considered the older series to be superior in several respects. In general, however, the researchers did not devote adequate time to the study of older book series so as to make a weighty comparison.

13. In the opinion of some teachers a good teachers' guide should be more detailed and offer the teacher greater horizon than the pupils' textbook. It should refer the teacher to several references and give examples of supplementary exercises for pupils and present imaginative alternative approaches to teaching themes, assuming both the availability and non-availability of standard teaching-learning materials in the school system.

14. In the opinion of some teachers the Institute of Education should synchronize the syllabi of geography, science, maths, agriculture and related subjects to ensure that the pupils receive a more integrated body of knowledge.

15. It is the opinion of teachers in community primary schools that either the environmental studies syllabus be universalized, books be written and national examinations set on its basis or, if the fifteen years of its experimentation have been found negative, it should be scrapped off in favour of the syllabus in ordinary schools.

4.2 Conclusion on textbook quality

Evidently the study was not intended to draw generalizations but rather to gather data that indicated or illustrated problems connected with the quality of primary school textbooks printed in the UPE era.

On the basis of textbook quality criteria set out initially and taking into consideration the variables that tended to adversely affect the weight of the assessment made by book-users in the field (including short exposure to the books and/or maldistribution of the new books and the failure of the researchers to do classroom observation) the research team found a lot of indications to show the following:

1. The quality of the content was fairly high for all geography textbooks, all but two science textbooks, all mathematics textbooks, all English textbooks and all but two Kiswahili books under evaluation.
2. The evaluation exercises were not demanding enough in the majority of cases.
3. The language level was appropriate in all textbooks except Kiswahili although the addition of a glossary at the end of each textbook was recommended.
4. The quality of pictures, illustrations/maps was fairly low in geography and Kiswahili but fairly high in science, mathematics and English. The use of colour was absent.
5. The textbook-syllabus match quality was high in all textbooks for all the five subjects.
6. Incompleteness of the textbook series apart, books of the various levels displayed high continuity or progression among themselves.
7. Teachers in the field generally considered the new books to be of a higher quality and use-value than older book series although the teachers themselves and particularly the researchers pointed out a number of good quality elements in the latter.
8. The teachers had little or nothing to say about the quality of the teachers' guides because these were in most cases not available to them. The researchers generally found the teachers' guides to be of a fair quality.
9. There was no significant difference between urban and rural schools in terms of distribution of the books and/or assessment of the textbook quality by the users in the field.

4.3 Recommendations

1. Recommendations for further research

- a) The present study failed to gauge the textbook quality within the wider and complex process of classroom interaction involving various elements including teachers, pupils, textbooks, audio-visual aids, examinations and the overall teaching-learning environment. In fact, one of the deficiencies of this textbook quality study is the failure of the research team to carry out classroom interaction observation and analysis so as to reveal the textbook-in-use quality. It is, therefore recommended that the Department of Education should do a large-scale classroom interaction study.
- b) Some of the books which were evaluated have been published very recently and have not been in use long enough for teachers and pupils to be able to assess their quality. In fact, many textbooks have not yet reached the hand and therefore the minds of pupils for whom they were intended. This means that for such books what has been presented is the view of the research team

without the benefit of the rich experience of the users in the field. It is recommended that the users' opinions be gathered in a research to be done later on when users will have had a longer exposure to those books.

c) There is need for a study to look into the proliferation of primary school books in the light of the syllabus requirements and the escalating production and distribution costs to the government as well as to the consumers.

d) There is need to study systematically old books of various subjects to determine the positive aspects of them in terms of approach, illustrations, etc, from the teachers' viewpoint so as to use them deliberately in the writing of new books.

In English, for example, older books used to carry memorable stories such as Adu's which many teachers of the older educational generation seemed to remember and considered as still being worthy of teaching today.

e) There is need for research to look into the issue of appropriate pictures, illustrations and maps for pupils in various grades and different geographical-cultural settings so as to serve as a basis for picture books and atlases for learners of the various subjects. There is need to look into the various concepts and skills and learn from teachers in the field about the best way to meaningfully present them to the pupils in the textbooks.

f) There is need to find out more systematically what teachers and inspectors feel would be a good teachers' guide and/or handbook in the primary school context.

2. Recommendations for action

a) For the purpose of planning textbook production the Ministry should review its information base by collecting fresh up-to-date data from the grassroots about what is and what is not available in the school system.

b) In future textbook manuscripts should receive greater scrutiny and be subject to field pilot-testing before being introduced in schools. University-level staff, inspectors, editors, etc must be involved in the evaluation exercise. Particular attention should be paid to the way the books and chapters are introduced, the pictures and illustrations, the concepts and skills explained, and the quality of the exercise.

c) The writing of the textbook should be conceptualized in terms of the entire series for the school level along with the accompanying syllabi, teachers' guides and teaching-learning materials. The launching and distribution of the new books also should not be done piecemeal so as to avoid causing discontinuity in children's learning and general confusion in schools.

d) Crucial distribution points at regional and district levels must be manned by professional teachers who will appreciate the problems caused by book shortage and maldistribution of available books: Thus it will be possible to ensure that textbooks go

with relevant syllabi and teacher's guides. In the event of a big shortage of the new books then the district should identify or establish a centre where the entire series of each subject together with its supplementary books and teaching materials should be available for teachers' free consultation.

e) The Ministry should have a policy for reprinting textbooks so as to ultimately ensure that each pupil possesses a copy for personal use both at school and at home.

f) Given the educational and economic costs of textbook production, change of books must be very carefully thought out. Perhaps there would be no harm in producing textbooks which contained more than what the syllabus called for and textbooks that were much more durable. In any case, frequent changes should be avoided, and old books should not be thrown away as useless when they could serve as good supplementary readers.

g) Last but by no means least, the Ministry should ensure that information about new books should reach users promptly and, as far as possible each school, college, university educational department and the National Examination Council should be given at least a copy. In addition, the goal of providing each pupil a textbook should be the goal of textbook production endeavours.

BIBLIOGRAPHY

1. Ministry of Education, Basic Facts about Education in Tanzania, Dar es Salaam: Printpak/MIUU
2. Wizara ya Elimu, Jiografia Hatua ya Tano, Dar es Salaam, 1979
3. Gleave, J F, A Visual Geography of East Africa, 1966
4. Ministry of Education, Education System Towards the Year 2000. Government Printer, DSN, 1984
5. Ministry of Education Zanzibar, School Atlas for Zanzibar. Tanzania/esselte map Services, Stockholm, Sweden, 1983

GUIDELINES FOR CONSTRUCTING RESEARCH INSTRUMENTS FOR THE TEXTBOOK QUALITY STUDY

At the request of the Head of the Department of Education (Prof Ishumi), Dr Dhanjo, Dr Malekela and Dr Komba met to suggest guidelines for the writing of instruments for the textbook Quality Study for Kiswahili, English, Maths, Geography and Science as commissioned by SIDA. Their terms of reference was the proposal that the Department had already worked out before. The guidelines presented below refer to Content Analysis of the Syllabus, Textbook and Teachers Guide; a checklist of classroom/school environment; teachers' questionnaire/interview and students' questionnaire/interview. Researchers dealing with the textbook of each subject referred to above are advised to work out details within and beyond the guidelines.

A CONTENT ANALYSIS

1. Syllabus analysis and critique

- a) Acquire relevant syllabus
- b) Relate critically the syllabus objectives to the primary education objectives (vide Basic Facts about Education in Tanzania, by Ministry of Education, 1984, p 3), namely:
 - (i) Acquisition of permanent literacy and numeracy.
 - (ii) Development of enquiring minds and ability to think and solve problems independently.
 - (iii) Development of socialist values, attitudes and knowledge.
 - (iv) Provision of education that is complete in itself.
 - (v) Provision of education that prepares learners for further education.
- c) Do a content analysis of the syllabus in relation to the objectives under b) above.

2. Textbook content analysis

- a) Acquire the textbook in the subject.
- b) Match the textbook content with the syllabus content so as to determine the degree to which the textbook is comprehensive.
- c) Analyse textbook presentation in terms of:
 - (i) Logical and pedagogical sequence;
 - (ii) Relevance of examples/illustrations/figures to the local environment and learners' experiential and educational background.

- (iii) The language level.
- (iv) Continuity of content with antecedent and posterior text-materials of the entire primary education cycle.

3. Teachers' guide content analysis

= Analyse the teachers' guide to the textbook in terms of suggested teaching approaches and student study approaches and activities, clarification of basic concepts, principles or laws etc.

B CHECKLIST OF CLASSROOM/SCHOOL ENVIRONMENT

Inter alia, this should include:

1. School timetable information plus time allocated for the subject.
2. Number of learners and available study times for the subject.
3. Number of copies of the textbooks (quantity).
4. Number of teachers for the subject and teaching load.
5. Level of education of the teachers.
6. Exposure of teachers to seminars/workshop on use of the textbook, and accompanying teachers' guide.
7. Availability of supportive/supplementary teaching/learning materials.
8. Convenience of access to books (e.g. presence of school library or stock of books/materials).
9. Information about schemes of work (who makes them) and lesson plans. Get hold of a sample of each for examination.
10. Specific tools/equipment for the subject.
11. Etc. etc

C TEACHERS' QUESTIONNAIRE/INTERVIEW

1. Length of book use.
2. Books used previously.
3. Comparison of textbook with previous books.
4. Legibility and readability of the text.
5. Adequacy of textbook coverage in relation to syllabus and in comparison with other books.

6. Views on textbook presentation in terms of logical and pedagogical sequence; relevance of examples, illustrations, figures etc to local environment, learners experiential and educational background; language level; continuity of materials of one level with another.
7. Topics not well covered in the textbook.
8. Whether the teacher uses other books and how those compare with the textbook.
9. Teachers' assessment of quality of the book.
10. Suggestions to improve quality of the book.
11. Teachers' methods of using the textbook before, during and after lessons.
12. Teachers' perception of the ideal textbook in the subject.
13. Teachers' perception of an ideal teachers' guide.

D STUDENTS QUESTIONNAIRE/INTERVIEW

1. Quantitative information about the textbook:
 - Number of copies: total, per student, per teacher.
2. If books are shared, how is the sharing done?
3. Where are copies kept and how easy it is for learners to have access to a copy and use it?
4. How is the textbook used by the students and teachers?
5. When is it used (before, during, after lessons)?
6. How often is it used?
7. Legibility and readability of the textbook (Any assistance sought in the use of the textbook?).
8. Which parts of the book are easy or difficult and what is difficult/easy about them?
9. Taking the learners through some parts of the book to check comprehension, assessment of relevance to learners' experiential/educational background, language ability.
10. Methods of studying the textbook.
11. Use of other books in lieu of/along with the textbook.
12. Comparison of textbook with other books.
13. Methods of teaching in the use of the book.

E CLASSROOM OBSERVATION SCHEDULE

1. Any use of special room?
2. Any special facilities/equipment?
3. Direct or indirect references actually made to the textbook before, during, after lessons.
4. How references to the textbook are made use of.
5. References to other books for the lesson.
6. Reading and homework assignment from the textbook.
7. Relation of classnotes to the textbook.
8. Readability of the textbook.
9. Relevance of the textbook use to learners' experience.
10. In general, how crucial is the textbook for the teaching the subject (in terms facilitating classroom interaction/active participation, and evaluation)?
11. How crucial is the teachers' guide for the success of the lessons?
12. Follow-up questions after classroom observation.

NB For reasons of space and bulkiness of the report, the five sets of subject-specific instruments have not been appended.

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LIST OF SCHOOLS IN THE SAMPLE

In Morogoro Region

Rural	Urban
Mangae	Hwere
Gwata	Mchikichini
Maseyu	Bungo
Melela	Mlimani
Mlali	Nwabesongo
Fulwe	Kilakala

In Iringa Region

Rural	Urban
Igwachanya	Ijala
Wenda	Wilolesi
Tanangozi	Miangali
Ulete	Gangilonga
Kibena	Mlandege
Lundamatwe	Kibwabwa
Lugalo	Ndiuka
Mbigili	Igumbilo
Nazombe	Azimio
Mwaya	Kichangeni

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