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(ESSPIN)**

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ESSPIN 004	Inception Strategy
ESSPIN 005	Initial Report from the MTSS Task Team Leader
ESSPIN 006	ESSPIN 3 rd Quarterly Report
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KW 303	Curriculum Transformation college of Education Oro
KW 304	Towards a Transformed Pre-Service Teacher Education Curriculum for College of Education Oro
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Acronyms and Abbreviations

EMIS	Education Management Information System
ESSPIN	Education Sector Support Programme
LGAs	Local Government Areas

Abstract

1. The purpose was to prepare for a quantitative survey of teaching and learning in a sample of schools in the five ESSPIN states. A classroom observation instrument was designed, three manuals prepared, and a local consultancy initiated to explore the technical options for data entry and analysis, and draw the sample

Executive Summary

2. A classroom observation instrument was designed using the systematic method of classroom observation. A total of 22 categories for observing the teacher and 21 categories for observing students were developed and defined. The instrument consists of (a) a key for behaviour which lists and defines each category; (b) a teacher observation sheet and a learner observation sheet; (c) instructions for completion; (d) a coding or ID sheet.
3. The instrument was designed in a participatory manner with the five State quality leaders who rapidly understood the approach and generated many useful ideas. The final instrument met with their satisfaction
4. The instrument was designed to measure the baseline position in schools in the five states. It therefore contains categories which reflect the most common patterns of teaching and learning in these schools. However, in anticipation of possible future change, it also incorporates categories which reflect more learner centred approaches to teaching and learning. Thus, if the instrument is administered in the same schools at a later point in the project, it will be possible to determine whether there have been any significant changes to classroom practice. Attaching a very brief questionnaire for teachers and headteachers to the instrument in future surveys will enable us to analyse whether the project itself has been responsible for any observed changes. The questionnaires will focus exclusively on the inputs the school has received from the project
5. It should be stressed that there are both strengths and limitations to the method. The strengths include the possibility of comparing behaviour in many classrooms both within the sample and across time, because the instrument converts behaviour into numerical data. The major weakness is that the quality of interactions cannot easily be measured. Complementary qualitative case studies are required
6. However, the instrument does allow the possibility of measuring the degree of openness or closure of teaching and learning across a number of dimensions.

7. Three manuals were prepared; (a) A survey managers manual, primarily for the quality leaders, which gives background theory and a justification of the methods employed. There is also a chapter on how the pilot should be conducted. (b) A trainer's manual and (c) A manual for the consultants who will be contracted to undertake the survey. Manuals(b) and (c) detail the purpose of the survey, and how it should be carried out (code of conduct), the tasks expected of the surveyors; how to select grades, subjects and teachers to be observed, ensuring that all surveyors have a complete set of materials; coding of the ID sheets; logistics; conduct of the survey including interviews with heads and teachers; and substantial time for understanding and completing the observation instrument
8. Sample. A national consultant was hired to draw the sample and given instructions. A representative random sample of 380 schools drawn from across the 5 states will be used. (A random sample is one in which every school has an equal chance of being selected. A representative sample is one in which the sample represents the entire population in question).
9. Technology of data entry. The national consultant was also asked to do a feasibility study of the technical options for data entry and analysis

Introduction

10. Not much is known in detail about how Nigerian classrooms operate. The recent study of teacher subject knowledge in Kwara illustrates the importance of understanding the main parameters influencing the learning of children. The project has already undertaken a range of useful school case studies, which include classroom observation, but a survey which gives a representative picture of teaching and learning is lacking. A series of background studies at this stage of the ESSPIN programme should yield a sufficiently detailed understanding of classroom dynamics on which to build well focused capacity enhancement interventions.

Purpose of the Consultancy

11. The purpose of the consultancy was to prepare the round for a quantitative survey of teaching and learning in a representative sample of schools in the five states covered by ESSPIN by drawing up an appropriate instrument tailored to Nigeria conditions and producing the required manuals
12. A subsidiary, but equally important purpose was to introduce State quality leaders to a new methodology and to explore with them a wide range of ways of interpreting what is observed in a classroom
13. Terms of Reference are found in Annex 1.
14. The report will be divided as follows; (a) Discussion of the classroom observation instrument; (b) Discussion of the accompanying manuals; (c) Discussion of data entry and analysis; (d) plans for a pilot

Structure of the Report

15. The report will be divided as follows; (a) Discussion of the classroom observation instrument; (b) Discussion of the accompanying manuals; (c) Discussion of data entry and analysis; (d) plans for a pilot

Methodology and Main Activities

16. **Methodology.** A visit was paid to two rural schools in Kagarko where six classrooms were observed. This was an essential preliminary to designing the classroom observation instrument as it revealed common patterns of activity in Nigerian classrooms. A brief report on the observations is found in Annex 2. Significant points to emerge include (a) the prevalence of basic subject matter

errors in both language and mathematics, confirming the validity of the Kwara findings in another state. (b) Very low expectations as to what can be achieved in a lesson, reinforced by the nature of the textbooks. (c) A disjointed approach to knowledge acquisition which fails to equip learners with generalisable rules and transferable skills in language or mathematics; (d) misuse of groups following training; (e) A number of teachers who could respond well to focused, skill based training, given that their capacity to interact with learners is quite good. Some showed very good blackboard skills.

A question posed by a class 5 boy

After a lesson observation, the class was invited to ask questions of the consultant. After a few desultory questions, a boy put up his hand and asked;

'How can I learn to read?'

Has he captured the essence of ESSPIN in six words?

17. A classroom observation tool was designed with the team of five Quality State Leaders (Please see Annex 3). The instrument has been briefly described in the executive summary and these comments will not be repeated here.
18. The basic idea of the instrument is that observers record observations against a pre-defined list of categories every four minutes. At each observation point, two observers will record three observations each. One observer will be observing teachers; the other will be observing learners. Each will record how the class is organised, the nature of talk, and the nature of activity at each observation point. In a forty minute lesson there will therefore be six observations made at 10 different points in the lesson, leading to 60 observations in a lesson. A total of 380 schools will be visited, and one English and one mathematics lesson will be observed in each totalling 760 lessons.
19. It is not to be expected that all observers will record accurately all the time. (In his book on classroom observation, Wragg makes the point that observers will only agree on what they are seeing for up to 80% of the time – and he was referring to trained researchers). However, on a large sample randomisation effects will operate. The misinterpretations of one observer will be offset by a misinterpretation in the opposite direction by another. The problems of misinterpretation will be reduced by the use of predefined categories and extensive practice during training. Any deficiencies in the instrument will be explored at the pilot stage.

20. The instrument should be interpreted as a whole. While it is very possible to calculate the frequency of any defined category of activity (eg the percentage of time spent in whole class teaching) and this will be done, no one category stands alone. For example, we will almost certainly find a prevalence of whole class teaching, but this would not necessarily matter if the quality of verbal interaction was high. There are several categories which explore this dimension for both teachers and pupils.
21. A quantitative instrument, almost by definition, cannot measure the quality of interaction. However, there is one device which threads through the instrument that seeks to measure quality by proxy; the degree to which closed or open questions and tasks prevail in the classroom. A closed task or question has been defined as one for which there is only one correct answer. An open task or question is one in which the learner is invited to supply their own words or solve a mathematics problem by devising their own process to reach an answer. Closely related to this theme is the degree to which learners are working on the same task, or using the same language as each other (eg chanting) or whether they are doing their own work devised by themselves. Finally there are a few categories which explore the degree to which there is some differentiation in the classroom.
22. Analysis of the results will present the frequency with which each category of activity is found across the 760 lessons, and will also discuss the issues raised above. It will also explore the degree to which classrooms differ from each other.
23. The possibility of investigating the important issues surrounding inclusiveness was discussed. In theory the instrument could be designed to investigate these issues, but both the quality leaders and the consultant considered that it was essential to devise an instrument that would be manageable by the observers. It was decided that another study would need to be undertaken to investigate this complex of issues.
24. A manual for managers of the survey was produced. The purpose of this manual was to provide a basic theoretical background for managers, and a justification of the methods employed and decisions taken. (on issues such as sampling methodology, data analysis etc) It provides a detailed statement on how the pilot is to be conducted. As such, it may be of slightly broader application than the teaching and learning survey. The manual is found in Annex 4
25. A manual for trainers was produced. It is quite detailed and prescriptive because of the need to record the frequency of occurrence of different categories as accurately as possible. Moreover the demands of data entry make it essential

that set procedures are followed precisely. If this is not the case, we will find that we have large numbers of missing cases.

26. However, time is allocated in the training for discussion and exercises designed to enable observers to understand both the instrument as a whole and the individual categories of which it is comprised.
27. A DVD was kindly provided by the quality assurance adviser and will be used for training. There was no time to discuss its use with the quality team, but this will be done on the next visit when a decision will be made to use either the video alone or the video in conjunction with the lesson simulation exercise already included in the manual.
28. The manual has an extensive section on how to code the observation sheets for data entry and analysis. This section will not be necessary if a technical option for pre-programming coding (see below) proves feasible, thereby releasing time for focusing on the administration of the instrument.
29. A brief section on logistics has not been completed as this depends entirely on decisions to be reached by the quality team. There was insufficient time on this visit with the team for these issues to be finally resolved.
30. The manual is found in Annex 5
31. A manual for observers (consultants) was also produced. This obviously reflects the trainers manual, but without the instructions to trainers. It includes several worksheets and exercises designed to acquaint consultants with the instrument and how to select teachers in the schools that they visit. The manual is found in Annex 6.
32. Sampling procedures. A detailed discussion as to how the schools are to be selected is found in the survey manager's manual. The other manuals detail the precise procedures to be followed in how to select the teachers to be observed.
33. The sample of schools follows a standard methodology. All primary and junior middle schools are treated as a single population. There is no stratification, as the issues to be investigated are common to both levels of education. A list of all the primary and junior middle schools in the five states will be collected by a national consultant, who has already been contracted. He will merge the lists, format according to the requirements of SPSS and export the data onto an SPSS file. The SPSS programme will then be used to draw a representative random sample of 380 schools. The number of schools required for a representative sample has been calculated on the basis of a standard mathematical formula

(please see the relevant chapter in the survey manager manual). These procedures will give us the standard 95% certainty in the accuracy of results.

34. English and mathematics will be the only subjects to be observed, based upon ESSPINs focus on literacy and numeracy. Grades 2 and 5 in primary schools and JS2 in junior middle schools will be observed. Procedures for selecting teachers to be observed are in the manuals. Care has been taken to ensure that the observer, not the headteacher makes the selection. An equal number of English and mathematics classes will be observed.
35. Data entry and analysis. A national consultant has been contracted to conduct a feasibility study into the local technical options for data entry and analysis. (Please refer to Annex 7 for his terms of reference)The normal form of data entry is manual, but there are substantial advantages in scanning the completed observation sheets into the software programme direct. Scanning the total number of 1520 sheets will take an hour or two. Manual programming would take very much longer, delay the report, require management support from the quality team and, crucially, would include numerous errors which would have to be laboriously cleaned. No errors would arise if the sheets are scanned.
36. Scanning can use an OCR or OMR. The latter option is preferable if a relatively low level of technology can be used, and the coding pre-programmed. The options for hiring the use of an appropriate machine or contracting out are being explored.
37. An optical mark reader can usefully be employed if software is developed and both the machine and ID sheets attached to the observation schedules can be pre-coded. This would ensure that the coding system works smoothly, and the results are as accurate as possible. If a software programme is developed by an external agency it will be important to ensure that the programme has rights over the software.
38. Even if a scanner is used data cleaning is still an issue. Examination of the recorded observations from each school might show that a percentage of lessons have been badly recorded, normally because the number of frequencies is rather inaccurate or the pattern of frequencies to be lacking in credibility. Immediately before data analysis, the results will be scrutinised in detail, and any glaring cases of poor recording excluded. As we have slightly over sampled this should not present too much of a problem providing that the number of excluded cases is low.
39. Data analysis will use the SPSS so secure the results which will be described and interpreted in the teaching and learning survey report.

40. Findings

41. A description of the classes observed is found in Annex 2.

42. The quality team leaders are a committed and highly competent group who have a sound understanding of the many of the subtleties of classroom observation. Providing that they remain in place, any subsequent surveys can be managed by them, although it is probable that the international consultant will need to be involved in (a) design of brief questionnaires to be used in conjunction with classroom observation data to assess programme impact (b) data analysis and interpretation, and report preparation, particularly as any subsequent analysis will involve the comparison of data over time and the relationship of observation data to programme input variables.

Conclusions

43. Progress has been satisfactory, but there are a few loose ends that need to be tied on the next visit (as detailed above)

Options and Next Steps

44. The feasibility study and the school sample will be available on April 5. The former will need to be examined and put into implementation. Details of the school sample will be sent to the State quality team leaders, together with a complete list of schools in their State. Based on the number of schools in the sample in each state, the quality team leaders will recruit an appropriate number of consultants to undertake the main survey. Each pair of consultants will visit up to 10 schools. The maximum number of schools sampled in any one state is likely to be 90, therefore requiring 9 pairs. It is possible that more schools will be sampled in Lagos and Kaduna.

45. The technology of data entry will need to be investigated and finalised. Precise procedures must be agreed and recorded in the manuals, and probably in a contract with an external agency. A timetable will also be agreed for software development and scanning.

46. The pilot will be conducted in the last two weeks of April. It will involve (a) two days planning with the quality team and the consultant, in which the precise manner in which training will be undertaken, is defined. It will also include detailed examination of important sections of the manuals and the observation instrument. (b) two days training of the pilot observers. This is important not only as a preparation for the school visits, but also to trial the training materials. (c) Two days of school visits by the pilot observers. They will be accompanied by

the quality team and the consultant so that the problems that are likely to arise in the main survey can be understood. (d) One day for feedback from the observers, and amendments as required to the instrument and the manuals.

47. The main survey will take place in the latter part of May and June, although any small slippage into July would not be a problem in most, but not all States. Scanning will take place thereafter.
48. Data analysis and interpretation, and report writing will take place at the beginning of August.
49. A timetable is found at Appendix 8 of this report
50. Suggested Terms of reference for the next visit are found at Appendix 9

Annex 1 Terms of Reference for Mission 11 March-26 March 2009

Terms of Reference for Mission 11 March-26 March 2009

Component 3 Education Quality: Baseline on classroom practice

Purpose of Visit

To design and set up a survey of teaching and learning behaviours in the classrooms of project states to determine the degree to which traditional or more learner centred approaches are employed

Outputs of the visit

1. An agreed classroom observation instrument
2. A manual for managers of the survey in each state which will detail the purposes of the survey; procedures for conducting a small pilot of the instrument; sampling plan; the data collectors manual; approaches to the analysis of results; kinds of results that will be yielded from the instrument
3. A data collector manual
4. A detailed and agreed action plan with agreed responsibilities

Activities

1. Visits to a small range of schools which represent the main types of school to be included in the survey (2 days maximum)
2. Discussions with key stakeholders, preferably cross state, on priorities for classroom observation. These will be based on major teacher training objectives and be accompanied by a presentation on the strengths, weaknesses and rationale for the methodology to be employed
- 3 Design of the instrument
- 4.Feedback from government side on the instrument
- 5.Design of sampling plan in discussion with survey managers (and EMIS?)
6. Design of data collector manual, preceded by discussion and agreement on key logistical issues with survey managers
7. Design of survey manager manual
8. Training of trainers' workshop
9. Discussion with local SPSS specialist on data entry and analysis

A brief report, together with complete sets of documentation will be submitted within one week after departure from Nigeria.

Annex 2 Classroom Observation Findings

1. Two schools were visited in Kagarko. 6 classes were observed, three of which were English and three mathematics.
2. The programme has already commissioned a number of case studies of schools which included observation of teaching and learning. It was found that the observations recorded by those studies were valid, and will not be repeated here.
3. **Subject matter knowledge.** The findings were consistent with those reported in the Kwara study. Numerous small basic errors of language were observed in the English class. Basic errors of presentation and explanation were made in mathematics classes. For example, the following diagram was written on the blackboard (three times!) by a teacher seeking to explain how the length and breadth of a rectangle could be calculated by breaking down the rectangle into 1 cm squares

Area of rectangle

5cm horizontal x 3 cm vertical

4. **uage in the classroom.** Not a single open ended question was directed at the class or individuals in six lessons. There was only one open ended task observed, in which children in groups were asked to make a sentence out of nine words written on individual pieces of paper by the teacher. During this exercise the increase in tempo in the learners was palpable.
5. Learners were not invited to ask questions, even to clarify the task. Nor did they.
6. Learners were silent for most of the time, which did not mean that they were absorbed in their tasks. By the time the main subject of the lesson had been repeated for the second time, there was a noticeable decline in levels of attention with corresponding body language
7. **Disjointed approach to knowledge acquisition.** (no skills were taught). Both in language and mathematics, language and problems were taught in isolation from the need of learners to acquire transferable skills or understanding of general rules. The subject of the lesson was announced at the beginning of each lesson, but usually as an incomprehensible abstraction.
8. **Speculatively, the nature of the textbook is partially responsible, together with the teachers own weak grasp of generalisable constructs.** The language textbook being used in one school (but not referred to in the lesson by either teachers or learners) consisted of almost identical pages; a picture under which were three key words for the lesson, and one or two sentences. Presumably the object of such a lesson would be to teach the key words, using the pictures provided and to practice them using the sentences provided – a very prescriptive way of teaching literacy and not one calculated to enable the learner to understand a language or decode words that had not previously been encountered (it is almost as if the child is being taught Chinese characters!)

9. **The weaknesses of the textbook were amplified by the teachers.** In one class 2 lesson, a teacher was teaching the class the meaning and spelling of four words; feet, hear, leaf and seek. Feet and leaf were explained by pictures but the meaning of the other two was left unclear, particularly as the teacher did not use the local language to explain the meaning of the words. The problematic spelling of ee and ea in English was left untouched. The words were given no context. The only writing which learners were asked to do, was to copy the four words on the blackboard. One girl was asked to write the four words on the blackboard after they had been rubbed out by the teacher. The implications of such a classroom sequence must be left to literacy specialists, but it certainly raises questions about the need for phonics; the need for approaches that stress the meaning of language; the need for children to write their own language; and the acquisition of generalised understandings to enable learners to decode new texts.
10. **Inclusion.** Girls as well as boys were asked to perform at the blackboard or answer (closed) questions. In each class, irrespective of the size of class (which varied from 17 to 62) 5-8 learners wrote on the blackboard or answered questions. A small majority of those who participated most actively were boys. One teacher asked a girl to work on the blackboard who was clearly less able than most of the class, illustrating that some teachers are able to think successfully about inclusion. However, most children were passive throughout.
11. **The uses and misuses of groups.** One of the schools visited had participated in a training programme that included practice in group work. Only one teacher (as recorded above) succeeded in even a modest effort at group work. The total amount of time which children spent working in groups was 2 minutes across the six lessons.
12. A blatant example of how group work can be misinterpreted was offered by a teacher who organised his learners into physical groups and then told them to work in silence. More worrying was the teacher who had organised her class into four 'groups' but continued to teach in a purely traditional manner except that when she asked for a response from learners, she always addressed it to one of her groups. There was no evidence of teacher-individual pupil interaction in this class. Effectively, the 'group' approach was stifling even the possibility of differentiation.
13. **Classroom assessment.** Several teachers clearly wanted to know whether the class was understanding their explanations. Their only method was to ask the whole class and be greeted by a mechanical chorus of affirmation. The ' traffic lights' method would work well in these whole class situations.
14. **On a more positive note.** Several teachers demonstrated good inter personal skills and a confident relaxed approach to classroom management. Some would undoubtedly have the potential to become good managers of a whole class discussion, given reasonable skill training.

Annex 3 Classroom Observation Instrument

The instrument is composed of;

- A key to behaviour
- Classroom observation sheets; one for those observing teachers; one for those observing learners

KEY FOR BEHAVIOUR

KEY FOR TEACHER BEHAVIOUR

How the class is organised by the teacher

A1	Whole class	All children working on same task. Usually it will be the teacher who is talking. Sometimes it will be a learner talking to the class. Working as a class, all doing the same task, refers to times when the teacher is talking to the whole class ie the teacher expects the whole class to be listening or looking. This can sometimes be confusing because the teacher might be talking to an individual or group but doing it in a way that is intended to attract the attention of all the pupils in the class. This is the traditional classroom style, which we might see reduced in frequency (but never eliminated) as teachers adopt more learner centred approaches to teaching and learning. We must not forget that some teachers can use whole class teaching to enable children to learn well.
A2	Individual	Children working on their own tasks. Working as a class, but doing own work may appear to be similar to the category described above but actually is very different. All pupils will be seated at their desks (as when the teacher is talking to the whole class) but are actually doing their own work ie their task will be different to their neighbours. For example all children might be writing a story, but if it is their own story in their own words, they will be doing their own work. By contrast if the children are copying words or sums from the blackboard, they will be working as a class on the same task. The difference between the two categories is that in the second, the teacher is getting the children to think for themselves and create their own work as individuals. Imagine that you look at the exercise books of the children. If you think that what they are writing in their books (either words or sums) will be the same as their neighbour they will be working as a whole class; if different they will be working as individuals.
A3	Group or pair	If pupils are genuinely organised in groups (or pairs) it will involve some co-operation and communication between group members. The pupils will talk to each other or study material together. They will be talking about a task set them by the teacher. Also included here is when a learner is reporting back the results of group discussion. The rest of the class will be listening, but the presentation is a part of group work. The learner will be talking about the experience of the learners in their own words.

How the teacher is talking

B1	Teacher silent	
B2	Telling	Teacher talking at the class; not questioning or giving feedback. The teacher may be instructing, explaining, describing something, or saying what the students have to do next.
B3	Leading chanting or repetition	Teacher asks learners to repeat what he or she has said. Learners will be engaged in rote learning. Very often the learners will be chanting. At other times they will be merely repeating what the teacher has said.
B4	Questioning; encouraging individual response; closed question	A closed question is one for which there is only one right answer. Usually the teacher is asking children to remember facts. For example, 'What is the capital of Nigeria?' or 'what is the area of this rectangle?' are closed questions. The question can be directed to the whole class or to an individual student
B5	Questioning; encouraging individual response; open question	An open question is one for which there are many possible right answers. Often the teacher is asking the learners to use their imagination or to analyse. For example, 'Why is Abuja the capital of Nigeria?' or 'How did you calculate the area of that rectangle?' are both open questions. The learner has to choose what to say. There will be several different ways of responding. The question can be directed at the whole class or to individual learners.
B6	Closed feedback	Teacher answering learners in a closed way; closing conversation. For example, a learner may ask 'Why is Abuja the capital of Nigeria? The teacher may not reply; may say talk to me later; or may say 'because it is in the middle of the country.' In each case the dialogue between teachers and learners is closed.
B7	Open feedback	Teacher answering learners in an open manner; inviting further discussion or thought by the individual learner or the class. For example, in answer to the question why Abuja is the capital of Nigeria, the teacher may say ' Some people say that it is because it is in the middle of the country, but what do you think?. There are other reasons as well. Remember what we did in social studies last week...' The teacher is using the students question to explore the issue further.
B8	Praising	Could be individual student, group or class. Could invite class to clap. Could be words of encouragement to the class or an individual
B9	Reprimand-ing	Maintaining discipline or telling pupils to follow rules. Usually negative. Don't do that or be quiet.

Teacher pedagogic activity

C1	No pedagogic activity	Teacher observing class from front, but not talking; doing nothing; out of room; reading a newspaper or book. At the beginning of a lesson, the teacher may not be organised and may not have given any instructions to the students who will be waiting for the lesson to start. During the lesson, the teacher may be observing the class from the front, but not saying or doing anything. He might be reading a newspaper or be out of the room. He might be talking to a visitor (eg the head teacher). At the end of the lesson, the students may have finished their work early and everybody is waiting for the time they can leave the classroom
C2	Teacher observing class or learner working on blackboard	The teacher will usually be at the front of the class, and will usually be talking. She or he could be explaining, instructing, telling or describing something. She or he will be observing students. The teacher could also be talking about something a learner is doing on the blackboard. The teacher could be at the front observing learners working on an exercise, in group work, doing activities. This is not to be confused with C1 when the teacher may be at the front of the class but not talking or doing anything related to the lesson.
C3	Writing on blackboard	This could involve copying writing or mathematical exercises from the textbook, writing the teachers own words or maths for the learners to copy; writing homework assignments etc. It could involve watching a learner work on the blackboard to the teacher's instructions.
C4	Demonstrating or displaying work	Sometimes this will involve the teacher writing on the blackboard and might therefore be confused with C2. However this time the teacher is using the blackboard to explain a concept or problem and therefore increase learner understanding. The teacher could be showing how to solve a mathematics problem (instead of just copying the problem onto the blackboard). The teacher might be discussing a piece of written work on the blackboard (to illustrate a grammar or spelling point or even to discuss the way in which the piece is written). The teacher might also be showing the class a page from the textbook and explaining what they have to do next.
C5	Moving around amongst students	The teacher has moved away from the front and is moving amongst the students, probably looking at the work of individual students, groups or pairs. He or she will be available for questions. The teacher will be silent, letting the students work uninterrupted.
C6	Participating in group discussion, talking to individual learner or pair	The teacher will not be at the front of the class, but amongst the students as in C4 above. The teacher will be talking to students, explaining something, or joining in the discussions that the students are having.

	of learners.	
C7	Teacher using textbook	The teacher will be explaining something from the textbook; explaining a task in the textbook; reading from textbook.
C8	Teacher using improvised materials	Teacher using something that he or she has made. This also includes times when students are using improvised materials under guidance from the teacher. When this is happening the teacher may simply be observing the learners working.
C9	Teacher using charts, supplementary readers	Usually printed; commercially made, not made by the teacher. Again the teacher might be using the materials herself or might be observing the students use them from the front of the class
C10	Teacher marking books	Marking books with student, often asked pupil to come to front. Talks to pupil about work

KEY FOR LEARNER BEHAVIOUR

How learners are organised for learning; class, group, individual

A1	Working as a class; all doing same task	All learners will be working on same task. They will often be listening passively to the teacher talking to them, but sometimes they will be listening to a learner who has been asked to come up to the front to do something on the blackboard. Learners will also often be working as a whole class when they are working in their exercise books. They could be doing an exercise from the textbook, could be doing mathematics problems which the teacher has written on the board, or they could be copying from the board. Learners will be working as a whole class when they are working on the same task, and what they write in their books will have the same correct answers.
A2	Working as a class, but doing own work individually	Learners will be working on their own tasks. If you look at their exercise books, each child will have different work. Each student will have to make their own decision about what they do. Examples include writing their own stories in their own words, or filling in blanks with their own words (not words selected by the teacher). In mathematics they might be making up and solving their own problems or working with cubes or matchsticks to solve problems.
A3	Organised in groups or pairs;	Learners will be organised physically in groups or pairs. They will be talking to each other about the task that the teacher has given them. They will be talking freely in their own words. Sometimes they will be working as a group to solve a problem eg putting words in the right order to make a proper sentence. At the end of a group session, a learner may report back on what the group has done. This should also be counted as group work, even though it might look like a learner talking to the class as in A1 above. The difference

		is that when a learner is reporting back from group work she or he is using their own words to describe what the group has done. They are describing the experience of the learners and not the problem set by the teacher.
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Learner talk

B1	Learners silent	The class will be listening to the teacher or to a student who has been asked to come up to the front to do some work on the blackboard. This is not to be confused with when the class is listening to a student reporting the results of group or pair work (B7 below) or listening to a student asking a question of the teacher, and the teacher responding (B3 or B4)
B2	Chanting	Learners will be repeating what the teacher has said, usually chanting their response. They will be learning by rote
B3	Answering teacher (closed question)	A closed question is one for which there is only one right answer. Usually the teacher is asking children to remember facts. For example, 'What is the capital of Nigeria?' or 'what is the area of this rectangle?' are closed questions
B4	Answering teacher (open question)	An open question is one for which there are many possible right answers. Often the teacher is asking the child to use their imagination, to solve a problem or to analyse. For example, 'Why is Abuja the capital of Nigeria?' or 'How did you calculate the area of that rectangle?' are both open questions. The learner has to choose what to say. There will be several different ways of responding. The answer will not depend upon simple recall of factual information.
B5	Questioning teacher; clarify task	Learners asking about what they have to do or how to do it. In a relaxed classroom environment, learners will be encouraged to ask this kind of question and will not be afraid to do so. In an authoritarian classroom, learners will tend to keep quiet even when they have a problem.
B6	Learners working in groups or pairs about the lesson	Learners will physically organised in groups and will be talking to each other, trying to complete a task that they have been given. They will not be working in groups, even if they are physically organised as a group if they are silent or are listening to the teacher talking to the whole class. They will not be working as a group if they are working as individuals, each doing their own work.
B7	Reporting results of group discussion	One or more learners per group telling the class about what they have been working on in group work.
B8	Learners chattering	Talking about things which are not related to the lesson

Learner activity

C1	Copying from blackboard	Learners will be copying what the teacher has written on the blackboard.
C2	Listening to teacher or learner	Learners will be either listening to the teacher talking (giving instructions, lecturing, explaining) or will be listening to a learner who has been asked to do some work on the blackboard. The learner will NOT be presenting the results of group discussion. That is C8 below
C3	Doing exercises set by teacher	These could be exercises set by the teacher on the blackboard or exercises in the textbook. Could be either English or mathematics. All children will be working on the same task with the same correct answers.
C4	Doing mathematics activities	Learners may be measuring, counting with matchsticks or stones; playing shops etc. Normally they will be trying to solve a problem using an object of some kind. The learners may be working on the same problem as their neighbours, but they are having to work out the process of getting to the answer themselves
C5	Writing in own words	Learners may be writing a story or other form of writing in their own words. They might have been asked to fill in blanks in a text. If learners have to choose their own words to put in the blanks, the activity is C5. If you look at their exercise books you will find that all children have written something different.
C6	Reading from textbook or other material	Learners could be reading by themselves or reading to each other in pairs or small groups. If one learner is reading to the class from the front, C2 above should be used.
C7	Group discussion	Learners will be organised physically into groups. They will be talking to each other about a task that the teacher has set. If learners are organised physically in groups but are listening to the teacher talking from the front, they are not working as a group, and C2 should be used. They will not be working as a group if they are not talking or are doing their own individual work – even if physically they are organised as a group..
C8	Group presentation	Learner telling the class about the results of group work, either from their desk or at the front of the class. Not to be confused with C2 when a student is talking at the front, but not reporting on the work of a group.
C9	Singing, dancing, games, drawing pictures. Making things	If learners are chanting, repeating what the teacher has just said and learning by rote, please use C2.
C10	No activity related to the lesson	Students may be chattering, staring out of window or waiting for the teacher to do or say something.. They are not engaged in any academic activity

Classroom Observation Sheets

Teacher Classroom Observation Sheet

	A1	A2	A3	B1	B2	B3	B4	B5	B6	B7	B8	B9	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
4																						
8																						
12																						
16																						
18																						
20																						
24																						
28																						
32																						
36																						
40																						

A1 Teacher organised learners as whole class

A2 Teacher organised learners for individual work

A3 Teacher organised learners to work in groups or pairs

B1 Teacher silent

- B2 Teacher telling, instructing, explaining or talking at learners
- B3 Teacher leading chanting or getting children to repeat what he or she has said
- B4 Closed question
- B5 Open question
- B6 Teacher gives closed response to learner
- B7 Teacher gives open response to learner
- B8 Teacher praising
- B9 Teacher reprimanding

- C1 No pedagogic activity
- C2 Teacher observing class or student working on blackboard
- C3 Teacher writing on blackboard
- C4 Teacher demonstrating or displaying work
- C5 Teacher moving around amongst students; not talking
- C6 Teacher participating in group discussion, talking to pair of learners; talking to individual
- C7 Teacher using textbook
- C8 Teacher using improvised materials
- C9 Teacher using supplementary readers, charts or maps
- C10 Teacher marking books

INSTRUCTIONS

- **You must tick one box in section A, one box in section B, one box in section C every four minutes.**
- **You will therefore make 3 ticks in a row every four minutes**
- **By the end of a forty minute lesson, you will have made 30 ticks.**
- **If your lesson lasts less than 40 minutes, finish at the last time interval (please see left hand column.).**

Learner Classroom Observation Sheet

	A1	A2	A3	B1	B2	B3	B4	B5	B6	B7	B8	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	
4																						
8																						
12																						
16																						
18																						
20																						
24																						
28																						
32																						
36																						
40																						

A1 Working as a class; all doing same task

A2 Working as a class, but doing own work individually

A3 Organised in groups or pairs

B1 Learners silent

B2 Chanting or repeating what teacher has said

B3 Answering teacher (closed question)

B4 Answering teacher (open question)

B5 Questioning teacher to clarify task

B6 Talking in groups or pairs about lesson

B7 Reporting results of group discussion

B8 Chattering

C1 Copying from blackboard

C2 Listening to teacher (or learner working on blackboard)

C3 Doing exercises set by teacher

C4 Doing mathematics activities

C5 Writing in own words

C6 Reading from textbook or other material

C7 Group discussion

C8 Group presentation

C9 Singing, dancing, drawing pictures, making things

C10 No activity

INSTRUCTIONS

- You must tick one box in section A, one box in section B, one box in section C every four minutes.
- You will therefore make 3 ticks in a row every four minutes
- By the end of a forty minute lesson, you will have made 30 ticks.
- If your lesson lasts less than 40 minutes, finish at the last time interval (please see left hand column.).

Annex 4 Survey Managers Manual

Manual for Survey Management Team

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Introduction; Purpose of the Survey

ESSPIN will be engaged over the next five years in introducing changes to classroom practice in primary and junior middle schools in the five states covered by the project.

A large educational reform programme is subject to considerable uncertainty. It is impossible to predict exactly what effects that reforms, singly or in combination, will achieve. This is not, of course an argument against reform, but it does suggest that the impact of reform should be monitored in an effort to ensure that expenditure is directed in the most effective manner.

The main purpose of the survey in 2009 is to create a baseline of current practices of teaching and learning in a representative sample of schools in the five states covered by the project in order to;

- Measure the main patterns of teaching and learning in classrooms in the five states, particularly focusing on the manner in which classrooms are organised and the degree to which learners are encouraged to think for themselves or make their own decisions about learning.
- Measure any progress achieved to date in the implementation of key features of learner centred pedagogy in the classroom as a result of the intervention of other projects
- Provide data which might guide the design and implementation of teacher training programmes
- Provide data on the manner in which resources such as textbooks, improvised aids and other materials are used in classrooms

Any subsequent surveys will focus on the changes that the project has brought since the baseline survey. This could be done by (for example)

- Comparing trends since baseline in classroom observation data between teachers who have been trained under the project and teachers who have not. It will probably be plausible to assume that any significant differences between the two groups could be due to project training.
- It is possible that other variables could be investigated. For example, if some schools have received new textbooks, supplementary readers or other instructional resources, it would be possible to compare classroom observation data between those teachers who have received the resources and those who have not.

It is important to stress that all research methods have their strengths and limitations.

The strengths of the systematic approach to classroom observation include;

- Measurement of selected observable variables in teaching and learning across a large sample of schools to give a picture of present patterns

- The possibility of comparing the practice across many schools at a single point in time, and of comparing practice across time (using the same survey methodology at different times).
- By converting behaviour into numeric data, systematic observation results can be linked to other forms of data on a computerised data base and comprise part of a wider monitoring and evaluation system. The primary source of linkage would be through the use of State EMIS school codes through which results from classroom observation data in any given school could be linked to other forms of data for the same school.

The weaknesses of the approach include;

- The limitations of such a method for identifying the quality of learning that takes place. For example, it can measure the amount of time in which learners spend in genuine group work, but not the quality of task that the learners have been set
- It can measure interaction only to a limited degree, although it can contribute some understanding to the degree to which learners are invited to think for themselves.

Sampling plan

The survey will sample a representative random sample of primary and junior middle schools in the five states covered by ESSPIN. By choosing a randomly selected representative sample, we will be able to say that the results obtained by the survey are representative, not only for the schools surveyed, but for all schools in the five states

In drawing the sample, the first decision that has to be made is how to select the schools to be sampled. There are essentially two main methods which could be used;

- To treat the schools as a single population
- To treat each school level (primary and junior middle) as separate populations thereby creating two distinct strata.

It was decided to select the first approach for a variety of reasons;

- The total sample size required would be much smaller
- The schools do not differ in any significant respect insofar as the purpose of the survey is concerned which focuses on generic issues common to all schools

There are approximately 11,00 schools altogether in the five states of which approximately 75% are primary schools

Sample Size

Sample size of a homogeneous population is determined by a mathematical formula as follows.

A Mathematical Formula For Determining Sample Size		
When simple random sampling is to be used (see below) and the population is relatively homogeneous, a mathematical formula can be used. This is illustrated below. (Source: Krejcie and Morgan 1970)		
Population size (N)	Sample size (S) for sampling error of 5%	Sample size for Sampling error of 1%
50	44	50
500	217	476
1000	257	907
5000	357	3311
20,000	377	6578
100,000	383	8926

The first point to note about the above formula is that we have to decide what sampling error is acceptable. The international norm is for sampling error of 5%, and there seems to be no reason to deviate from this practice as the additional accuracy obtained would be at the cost of having a very much greater sample, with attendant risks of enhancing data entry errors.

Let us now examine the differences between using a single sample compared with a stratified sample, using the above formulae.

A non-stratified sample of 11,000 schools would require between 357 and 377 schools to be sampled. It would be prudent to sample a slightly larger number of schools to offset any problems resulting from the failure to visit schools in the sample or, more likely, poor recording of observations.

If we stratify according to school level, we would need to sample as follows to achieve the same sampling error;

- (a) Primary schools; total number; about 8000 Sample required approximately 360
- (b) Junior middle schools; total number 3000. Sample required approximately 300

The total sample would therefore need to be 660 if we stratified the sample – almost twice the number of a non-stratified sample.

There would therefore need to be important reasons why we would wish to stratify the sample in order to justify such an increase. In fact there are no substantial grounds for treating schools in each level of the system differently as we are investigating issues that are common to all schools;

- the government and project wish to introduce common pedagogic practices into all schools. We have deliberately designed the classroom observation instrument to identify patterns of teacher and pupil behaviour that are applicable to all levels in the system

- there is little reason to believe that current practice in primary and junior middle schools differs substantially

Our representative sample size is therefore 380 if we allow for slightly over sampling.

Additional Purposeful Sample

The sampling method given above would give us a picture of teaching and learning in the five States. However, while some of the States such as Kwara are aiming to work in all schools to some degree, others such as Kaduna will probably be focusing their efforts on certain LGAs only. Since our sampling method allows us to select only one school in 30, it is highly probable that the number of 'project schools' sampled in a State such as Kaduna would be relatively small.

It might therefore be desirable to supplement the baseline representative sample with a randomly selected additional sample of schools from those States intending to work in a limited number of LGAs in order to ensure that we have a meaningful number of cases from which we can derive analyses. Too small a number would not allow us to derive any statistically significant results from the data ie results that did not occur by chance. (A rule of thumb is that the minimum number of cases required to draw any statistical conclusions is 30. More is clearly desirable).

The issue is not important for the baseline because at this stage we will be mainly describing the current patterns of teaching and learning, but will be important in any subsequent survey when we will wish to investigate the impact on the classroom of significant project interventions. It is therefore desirable to draw an additional sample of schools from selected LGAs if we wish to secure a wide range of policy relevant results in any subsequent survey.

IF specific LGAs are to be selected, the number to be included in this sample will be determined once project plans are slightly clearer.

The two samples must be kept distinct for most analyses, but can be merged for others. We should therefore aim to have two data sets.

Selecting the schools

A list of all primary and junior middle schools in the five states was used as the population from which to select the sample. Data was drawn from current EMIS data.

The list of schools is currently in Excel, but with some formatting can be exported into SPSS. SPSS is used to generate a randomly selected sample from the list according to the sample size that had been determined i.e. 380 schools

The additional purposeful sample can be secured in a similar manner, except that a complete list of schools from the selected LGAs will be used from which schools will be

selected randomly. Care will be needed to avoid duplication with the main representative sample.

Having secured this sample, it is critical that the schools are not changed. If for any reason it proves impossible to visit a given school (eg because it is no longer operating) that school should not be replaced.

Selection of subjects to observe

It was decided to observe only classes in English and Mathematics in each school sampled.

This was because; (a) the subjects are fundamental to the curriculum and to the cognitive development of learners and (b) ESSPIN will be concentrating heavily on literacy and numeracy.

It was decided to observe one English and one Mathematics lesson in each school in the sample. This will give us a total of 780 lessons from the main sample.

Selection of grades to observe

Lessons will be observed in grade 2 and 5 of primary school and in JS2. During the training course for consultants undertaking the survey, arrangements will be made to ensure that an equal number of lessons in English and mathematics will be observed in both grades 2 and 5.

Selection of teachers to observe

Small rural primary schools may only have one English teacher and one mathematics teacher for each grade. In these cases, the consultant will observe these teachers.

However in larger schools, there will be more than one English or mathematics teachers teaching our selected grades. A choice will need to be made as to which teacher to observe. The choice should be made by the consultant and not the headteacher, as we do not want to weight the sample towards the better teachers.

The consultant will request that the headteacher supply a list of all the teachers teaching English and Mathematics in our selected grades. The consultant will select one teacher from each subject at random. Full details are in the consultant handbook.

Chosen Research Methods

The purpose of this section is to explain why the instrument selected was chosen, and to indicate its principle strengths and limitations.

Why has a quantitative survey approach been chosen?

A survey normally uses only quantitative methods. These methods are a powerful tool for;

- a) ***Quantifying patterns of behaviour, attitude, inputs and outcomes throughout a wide population, in this case all the schools in five Nigerian states.*** If a representative random sample is drawn, the results from a quantitative survey will be within 5% of what is actually the case throughout the whole number of schools and teachers in the country. For example, if it is found that learners spend 80% of their time being taught as a whole class, we will know that this is correct to within 5% ie they spend between 76% and 84% of their time organised a whole class. In practice, many results will be far more accurate than this. Policy makers will therefore get an accurate picture of what is happening in the school system and therefore have solid evidence on which to base decisions
- b) ***Analysing at least some of the possible causes underlying the statistical patterns shown by the survey results.*** This can be achieved by analysing the relationship between different variables and applying statistical tests to find out whether the relationships represent something real or merely a random set of numbers. For example, we may want to find out whether teacher training has led to changes in classroom practice. Using the instruments of this survey, we can do this by comparing the classroom practices of teachers who have received the training with those who have not. If there is a statistically significant difference between the two sets of data (ie differences that are too large to have arisen by chance) we will be able to show some of the principal ways in which the training has changed practice. Our additional

purposeful sample *may* be able to shed light on whether the approaches adopted by different states have differed in their impact. This is further discussed in the last section of this manual.

- c) ***Analysing the extent to which the preconditions for learner centred pedagogy are in place.*** Classroom observation will show us the extent to which learner centred pedagogy is being practiced. It will not show us why (apart from teacher training). If questionnaires and case studies are also used, it will be possible to identify the contextual variables that encourage or inhibit the development of more varied pedagogies

For investigating the big, policy related issues, a well conducted survey yields data that is both reliable and valid.

A further advantage of the survey approach is that training data collectors is relatively easy – at least in comparison with other, more qualitative methods of investigation.

Surveys cannot however uncover the subtleties of classroom practice, (where there are complex interchanges every 5-18 seconds; Wragg; ***Classroom Observation***) nor can they dig deep into finding out why people behave as they do. Qualitative research methods have to be used if we wish to investigate such issues. This is not an argument against a survey approach. It merely shows that no one method can find out everything.

Why Have the Instruments to be Used in this Survey Been Chosen?

Surveys use a variety of different methods. Only one common instrument has been used for this survey; a classroom observation schedule that is quantitatively based, the results of which can therefore be fed into the computer and analysed.

The classroom observation schedule used is based on one originally developed by Flanders in 1970. While the design of the instrument has changed substantially over the years, it has been shown to be a reliable means of quantifying patterns of teacher and student behaviour in classrooms.

The basic idea of the approach is that it converts behaviour into numbers by measuring the frequency with which behaviours occur in the classrooms that are

observed. The great advantage of this approach is that every data collector will be looking at classrooms in almost exactly the same way. We can therefore compare the results from different kinds of schools or different subjects, or compare changes over time. By comparing the results of the first 2009 baseline survey with an end of project survey, we will be able to measure the changes that have taken place to teaching and learning.

One classroom observation instrument clearly cannot measure all the complex interactions that take place in a classroom. In designing this instrument, a simple framework, adapted from Flanders was created. It consists of five areas of investigation; the way in which the classroom is organised; how the teacher talks; how the teacher acts; how students talk; how students act.

In each of these five areas, categories were developed. A category is simply a description of something that the observer has to identify and record on an observation sheet. For example, three categories were developed for the way in which a classroom is organised; students are taught as a whole class; are working in groups or pairs; or are working individually on their own work.

In devising the categories, there are two important considerations;

- a) In total, the categories in each area must occur with sufficient frequency to allow the observer to make a continuous record of the lesson. If only a few uncommon kinds of behaviour are chosen, the observer will not be able to make a record for much of the lesson, and the results will not therefore show much about what is actually happening in Nigerian classrooms.
- b) The categories will include both 'traditional' forms of teaching and learning as well as those that indicate that learner centred methods are being practiced. This is important for several reasons. Firstly, we know that in many classrooms traditional methods will predominate. If we used only learner centred categories we would not record much in those classrooms. Moreover, some traditional methods such as talking at or to the students, or writing on the blackboard will continue to be used even in very learner centred classrooms. This brings us to the second point. By employing a mix of

traditional and non traditional categories, we can measure the extent of any change towards learner centred methods. We can do this by measuring the frequency with which typical traditional methods (talking at the pupils; organising pupils as a whole class; writing on the blackboard) occur compared with more learner centred approaches (group, pair or individual work; teacher moving around the classroom giving support to individual students; use of open ended questions etc). The approach is therefore suitable for measuring progress towards the goals of the Ministry and the project

- c) Care has been taken to include certain categories that indicate both closed and open approaches to learning. A closed approach is based upon the dominance of factual recall, an emphasis on only one right answer, closed questioning, and the predominance of activities in which learners are engaged in the same closed task prescribed by the teacher. Other categories seek to measure the frequency with which learners are able to decide for themselves how to complete a task, or discourse in which open questions requiring thought by both learners and teachers occur.
- d) Finally, there are categories in the instrument that seek to measure the amount of time wasted in the classroom. The survey will only be able to detect the most obvious examples. It will not be able to record more subtle forms of time wasting (such as excessive repetition of a particular activity) as these will require a greater degree of judgement than we can expect from our observers.

Each lesson will be observed by two consultants. One will be observing the teacher and the other will be observing the learners. There are several advantages to this method which outweigh the additional costs;

- A greater number of categories can be built into the instrument than could otherwise have been the case, making the instrument more powerful. No observer could manage 38 categories; two observers should be able to manage 19 each.
- The reliability of the observers can be checked by comparing frequency patterns occurring in the two sets of observations from the same lesson.

When it is evident that there are inexplicable and large variances, we may decide to exclude the results of that particular lesson from the overall analysis. Thus for example, the manner in which the class is organised should reveal similar or identical frequencies in both sets of observation of the same lesson.

Conduct of the Pilot for the ESSPIN Teaching And Learning Survey 2009

Purpose of the Pilot

The main purpose of the pilot is to ensure that both the instruments and the procedures are feasible, and to eliminate any problems that might be encountered by the consultants when they conduct the survey itself.

More specifically, the pilot will be used to;

Trial out the classroom observation instrument to ensure that

- It can be completed accurately by two observers. While we may expect that trained observers will be able to manage the number of categories in the instrument, we have to make sure that this is the case
- All common and important activities in Nigerian classrooms are included in the instrument.
- There is no overlap between or ambiguity in any of the categories. If so, we will need to reformulate either the categories themselves or their descriptors

Trial the training to be given to consultants who will carry out the survey. During the pilot one pair of consultants from each State will be trained. It will be important to find out whether the training has been successful, particularly whether;

- the techniques used in the training have enabled the consultants to understand the instrument and are thereby able to recognise each of the categories of activity in the classroom
- consultants are able to record the correct number of frequencies for a lesson of a given length on their observation sheets
- they are able to code the ID sheets correctly under guidance (although this may not be necessary if a preprogrammed OMR is used)
- they have mastered the procedures for preparing the headteacher and teachers
- they are able to keep the observation sheets in a condition that will enable them to be scanned properly

Trial out the procedures, particularly to ensure that;

- the time taken for each school visit can be known, and the logistics of the main survey properly planned

Trial out the technology to be used for data entry and data analysis, particularly

- the programme that should be written for the SPSS
- whether manual data entry or scanning should be used;
- if scanning is to be used, whether a conventional scanner, an OCR or OMR is the most appropriate
- whether the OCR or OMR should be pre-programmed
- whether the SPSS programme yields the correct results, although it is not anticipated that analysis of data will be done at the pilot stage

Tasks of the Pilot

There are a number of tasks that you will need to attend to in order to ensure that the Pilot Study runs smoothly. These tasks have been summarised as a “checklist” below. Please read this checklist carefully. As you complete each task, make a tick in the appropriate position on the checklist. Please make certain that you complete ALL tasks!

1. Instruments

In addition to this Pilot Study Manual, the consultants should have the following materials for each school in the pilot:

- (a) 2 teacher observation sheets with the ID sheet attached
- (b) 2 learner observation sheets with the ID sheet attached
- (c) The key for behaviour which describes the categories
- (d) A copy of the consultants manual
- (e) Some spare copies of the observation sheets
- (f) Materials; an A4 envelope for each school; a black ink marker pen
- (g) A watch
- (h) A notebook for recording any problems that have arisen during the school visits

Please check all materials in order to ensure that consultants have the correct number of each document and that there are no pages that are blank or missing. If any documents have errors, replace them by using the spare copies that have been provided.

Special Note:

Please treat these instruments as confidential documents that should not be misplaced or copied. If they were to be distributed or misused by persons outside the survey, they could lose their validity for the main data collection.

Make sure that pilot consultants return all of the research instruments (completed and uncompleted) to you after they visit their schools.

2. Selecting Schools for the Pilot Study

The pilot will be conducted centrally. Each State will contract a pair of consultants who will be trained at a central point. Each pair will visit

- One urban junior middle school
- One small rural primary school. Clearly this school cannot be too remote, but it should be off the main road. It should preferably be a fairly weak school. (If the survey works in a weak, rural school, it is likely to work anywhere)

It is essential that schools selected for the pilot are NOT included in the main survey.

3. First Contact with Schools

Send an introductory letter (see model letter in Appendix A) to SUBEP for transmission to the LGEAs and Heads of the selected schools.

4. Select the consultants

It is suggested that you select the same kind of people whom you will use to do the main survey. It was decided that the criteria for selecting consultants included;

- Fluency in both English and the local language
- Familiarity with the public school system
- Good inter-personal skills; ability to be tactful
- Background in learner centred or child friendly teaching (desirable)

5. Training

Trialling the training will be one of the most important tasks of the pilot. The training manual should be followed. If problems occur during the pilot training, these should be noted and the training manual amended accordingly.

6. Conducting the Pilot

The procedures to be followed in the pilot should be exactly the same as proposed in the Manual for Consultants. It is essential that these procedures are followed precisely. Only by so doing will any problems in the procedures become apparent.

7. On the return of the data

After the pilot has been conducted, the survey management team will discuss the results, in order to make any changes that may be required to the instruments or the procedures. Key issues that might arise in these discussions include;

- a) **The time taken to do all the necessary tasks.** When travel time to different schools is taken into account what implication does this have for conducting the survey in each school in one day? Are there many schools in the sample which will need two days to conduct the survey if travel time is taken into account?
- b) **The classroom observation instrument.** The design will need to be discussed. There are several key questions. Firstly, is it feasible to administer the instrument ie are there too many categories to handle or not? Secondly, are there any IMPORTANT common activities in the classroom that have been missed out? Remember that if additional categories are added, we should try to cut the same number of categories to ensure that the instrument remains manageable. Remember also that there may be some activities related to the new learner centred pedagogy that are not recorded very often. This is not an argument for removing them. Indeed we hope that in the second survey, we will find that some of these activities are more common.
- c) **Procedures.** Are the procedures clear? Is the order correct? If changes are required, how should the instructions be modified?

Make a record of all the changes that you consider necessary. Send your proposals or queries to the international consultant. We will then agree the changes required to either the instruments or procedures.

8. **Data Entry**

A feasibility study will be conducted by a consultant to examine the different options for data entry. The results of the study will determine the procedures to be followed to enter the completed pilot observation sheets.

Checklist of Actions to be Taken

The checklist below sets out the tasks for consultants during the pilot. Your job is to make sure that all these tasks are completed.

Checklist of actions to be taken during the pilot	Tick when you have completed the action
1. Have you checked that you have copies of all the instruments, and that they are all complete?	
2. Have you completed the ID box for each instrument before you visit a school?	
3. Have you got a package of instruments, pen, watch and an envelope in which to keep copies of the instruments	
4. Have you completed all the required tasks in your initial discussion with the head teacher?	
5. Have you had an initial discussion with the teachers whose classes you will be observing?	
6. Have you observed two classes? Have you put 30 ticks in each observation sheet?	
7. Did you record any problems that you had with the procedures? Please note that you should try to make these notes before you leave the pilot school as it is easy to forget things.	

Your tasks are;

Checklist of actions to be taken	Tick when you have completed the action
1. To select and train the consultants and ensure that procedures are understood	
2. To send a letter to SUBEP advising of the visit	
3. To meet with consultants after they have visited the schools to discuss any changes that should be made	
4. To agree changes with your colleagues in the other States and the international consultant	
5. To observe procedures for data entry	

Preparation for the Main Survey

This section will outline the actions that need to be taken after the pilot has been completed and before training is given to the supervisors responsible for the conduct of the survey.

Make a list of all the schools which will take part in the survey

This is an essential reference document that must be kept by the manager of the survey. It will be used for two purposes. It will be used in the training of the consultants (when they complete the ID boxes of their questionnaires and classroom observation instruments). It will also be used for reference to ensure that the correct schools have been visited during the survey.

The list of schools is compiled as follows;

- As complete a list of schools is obtained from each State in excel format
- The list is reformatted and exported to SPSS. The key pieces of information are the school codes and the LGEA details.
- SPSS is instructed to select a representative random sample of 380 schools for inclusion in the survey. A random sample means that every school in the list has an equal chance of being selected. SPSS has a facility which enables a random sample to be drawn. The method is technically sound.
- Two lists are sent to each of the States; a complete list of the schools in the State; and a list of schools in the State that have been selected for the sample.
- If it is decided to draw a second purposeful sample of additional schools from selected LGAs (see above), a random sample will be drawn using the same method, but only from schools in the selected LGAs. The second list will also be sent to each State that is involved in any second sample.

Allocate schools to pairs of consultants

Having identified the schools to be surveyed, it will be necessary to allocate schools to each pair of consultants.

As each school is allocated to a pair of consultants, their names should be written against each school so that the survey manager has a complete record of the responsibilities of each pair. This list should be consulted when consultants return completed observation sheets to

ensure that (a) all schools in the sample have been visited and (b) no schools not in the sample have been visited.

The document showing the school list, the schools to be surveyed, and the consultants responsible, should be retained as the second survey will use the same schools as on the 2009 survey.

Training

The training should be organised shortly before the survey is due to take place. If there is a delay between the training and the conduct of the survey, supervisors may forget important detail.

The survey does not have to take place on the same day, but should be conducted within a period of one month. It should take place during a period of the year when regular school lessons are taking place. This means that the training courses for do not have to take place at exactly the same time.

Each training course can be undertaken by TWO members of the quality team. This would be a great advantage as skills training is taking place, for which careful monitoring during the course is required. This means that the courses will have to be staggered slightly. This should not be a problem as the course is of only two days duration

The training will use the Trainers and Consultant Manuals.

Production of the Instruments

No special paper is required. Each State can photocopy the number of observation and coding sheets that it needs.

The number of sheets required will be based on the number of schools from the State in the sample. ie

- a) Two teacher observation sheets X number of schools in the sample
- b) Two learner observation sheets X number of sheets in the sample
- c) Two coding sheets for every school in the sample

- d) Add 10% to these numbers for wastage or to allow for any damage to the sheets which must be given to the consultants in pristine condition.

It is very important that all photocopies are clear.

Note that if an optical mark reader is used, the sheets may have to be printed to ensure maximum definition.

Timetable for Management of the Main Survey
--

The purpose of this section is to outline the key tasks of survey managers and the dates by which they should be completed.

No.	Activity	Start Date	Complete By	Responsible
1.	Agree design of classroom observation instrument and prepare draft manuals for survey managers, trainer manual and consultant manual;	11 March	26 March	Survey managers and international consultant
2	Drawing the sample and coding of SPSS in preparation for the pilot.	23 March	5April	ESSPIN consultant
3	Send list of all schools in State and sample schools in State to all State survey managers		5 April	ESSPIN consultant
4	Conduct feasibility study to assess the most appropriate technology for data entry	23 March	5 April	ESSPIN consultant
5	Contract consultants to be employed in the pilot	1 April	18 April	Quality team
6	Assess results of feasibility study; set up appropriate technical option for data entry and analysis	16 April	20 April	International consultant

No.	Activity	Start Date	Complete By	Responsible
7	Advance planning: Plan the overall schedule and distribution of responsibilities for the different activities using this table. Review instrument and manuals. Plan training	21 April	22 April	Quality team International consultant
8	Training of pilot consultants in Kaduna; pilot trainer and consultants manuals	23 April	24 April	Quality team International consultant
9	Trial the instrument through classroom observation in schools	27 April	28 April	Quality team International consultant
10	Review experience of pilot; amend instrument or manuals accordingly	29 April		Quality team International consultant
11	Request approvals from the relevant authorities for main survey	1 May	15 May	Quality team
12	Printing of instruments and manuals: Prepare all instruments and materials for printing and take the necessary actions to have them printed.	1 May	15 May	Quality team
13	Purchase of materials: Purchase envelopes, black ink pens.	1 May	15 May	Quality team
14	Organization of logistics of survey: Make all necessary preparations for the actual survey, including: <ul style="list-style-type: none"> • the appointment and assignment of consultants • organization of transport for the survey; • booking of venues for training and all other activities; • booking of accommodation if required; • allocation of computers for data entry. 	1 May	15 May	Quality team

No.	Activity	Start Date	Complete By	Responsible
13	Training of consultants in each state; 2 quality team leaders per state. Staggered training. 2 days in each State	16 May	30 May	Quality team
14	Data collection: Conduct the actual survey. This involves fulfilling all the steps planned, organized and taught to the consultants. Managers must be available at all times during the data collection period to resolve any problems that may come up.	1 June or possibly slightly earlier in some states	7 July	Consultants
15	Return of instruments and materials: Ensure that all instruments and materials are returned to the State managers. Follow up on any outstanding observation or coding sheets	June	7 July	Consultants Quality team to monitor
16	Check completed observation and coding sheets.		7 July	Quality managers
17	Data entry: method to be determined. Probably scanning; possibly using OMR	8 July	1 August	Probably contracted out
18	Data analysis workshop and preparation of baseline report.	First week of August	10 August	Quality managers International consultant

Data Entry and Data Cleaning

Data Entry

This section can only be fully written after the position regarding the technology to be employed for data entry is established. A feasibility study will determine the best method to be employed.

In principle, scanning through a pre-programmed optical mark reader would be ideal. This would enable all completed observation sheets to be scanned and imaged data transferred to SPSS in an hour or two. More important, manual errors in data entry would be eliminated.

Note that if a form of scanning is to be used,

- a) A black ink pen must be used by observers to allow the scanner to pick up the ticks**
- b) The observation sheets must be kept in excellent condition and must not be folded or made dirty. This will interfere with the ability of the scanner to read the data**

Data Cleaning

However, it should be stressed that some data cleaning may be required. If a lesson has been observed to a reasonable level of accuracy (total accuracy is a pipedream; no two observers will ever agree exactly on what they have seen) the data from each lesson should display the following features

- a) The correct or nearly correct number of frequencies should be found.** Each 40 minute lesson should have 10 frequencies in each of the six areas of the instrument. Some latitude will probably have to be given, but if observers have recorded far too many or too few frequencies, the class may have to be eliminated from the results. This is because (a) too few frequencies will not convey a clear picture as to what has happened in the class; (b) too many frequencies may possibly reflect the class rather well, but may distort the findings of the survey. For example, if the teacher observed was being very innovative, a high number of frequencies for his or her lesson might lead to us exaggerating the level of innovation in our results. **A reasonable margin for error would be plus or minus 20% in the total number of frequencies recorded against the correct number.**
- b) The pattern of frequencies should be reasonably consistent.** It is possible that a pair of consultants did not visit a particular school, or observed very badly, but still inserted the right number of ticks in each section. To guard against either of these possibilities, we can do a few simple consistency checks;

- **Are the frequencies for class organisation (section A) similar in both the teacher and learner observation sheets?** This is easy to verify and will show immediately whether there is a degree of accuracy in the record.
- **Are the frequencies for open and closed questions fairly similar in the two sheets.** For various reasons, they will not be identical, but the rough orders of magnitude should be similar. For example, if the teacher sheet suggests that a teacher is using almost exclusively closed questions, and the learner sheet shows extensive use of open questions, we may have cause to doubt the quality of observation.

Data Analysis; Anticipated Themes

We cannot prejudge the actual results, but we can and must anticipate the principle lines of analysis that will be applied to the data using the functions of SPSS (Software Package for the Social Sciences)

Classroom Observation

The classroom observations will yield statistical data on the behaviours of teachers and children in the classroom. SPSS will yield bar charts showing the frequency of the occurrence of each of the behavioural categories in the classroom observation instrument.

Some of these categories will show the continuing extent to which traditional methods of pedagogy are being practiced. These include, for example, teaching students as a whole class; teacher writing on the blackboard and students copying off the blackboard; teacher talking at the students while the students are silent.

Other categories will show the extent to which more learner centred pedagogies are being practiced. These include for example the frequency with which group or pair work is being organised; the degree to which students work on their own individual tasks using their own words/ drawings etc; the degree to which teachers are beginning to treat students as individuals and provide support tailored to the needs of individuals; the degree to which open rather than closed questions are employed etc.

Baseline

The **analysis at baseline** will be mainly descriptive and focus on;

- a) The prevalence of traditional and learner centred methods measured by the frequency with which these occur. Bar charts can be produced to show the picture in the five States
- b) The situation in different subjects can also be analysed.
- c) The situation at different levels of the education system can be investigated. Findings for primary and junior middle schools can be compared as a whole, and by subject
- d) Differences between schools can be investigated. Teacher training strategies might differ according to whether innovations are occurring strongly in a few schools or teachers, or alternatively are broadly distributed, but in a relatively superficial manner. It is probable that schools will not vary significantly at this stage in their methods of teaching and learning.
- e) Key themes for comment include the manner in which classrooms are organised; the proportion of time spent in which more open approaches to learning are employed which allow the learner to make decisions about how they learn, what they say or what they do; wastage of time ; the degree to which very traditional, closed

methods of teaching and learning are employed; possibly the prevalence of reprimands

- f) Is there any evidence that teachers using whole class approaches are using open questioning or responding openly to learners responses?

The second and subsequent survey

The analysis in the second survey will measure changes from baseline.

Similar analyses to the above can be undertaken, except that comparisons over time will be undertaken and the impact of key project interventions can be measured

- a) The impact of teacher training can be measured by comparing trained and untrained teachers. This can only be done if teachers are asked whether or not they have been trained. Even if a school has been covered by training, we cannot assume that the teacher who is being observed has actually been trained. They might have been sick; been recently transferred; missed from the training lists of participants etc.
- b) If teacher training takes place each year, the impact on different cohorts of teachers can be examined by comparing the classroom observation data of teachers trained in different years. This is important because it might be possible to establish whether the impact of earlier training is being sustained, or whether training courses are increasing or decreasing in effectiveness.
- c) Other kinds of test may be possible. For example, if some schools have been subject to community mobilisation involving a degree of parental or community monitoring of the school, the independent impact of this initiative could be explored by comparing the classroom observation data of trained and untrained teachers in schools with and without community mobilisation. Our ability to conduct meaningful analyses will depend upon the numbers of schools which have received training and community mobilisation. If numbers are small, we will not obtain any statistically significant results.

A rich analysis at mid term and end of project will require;

- a) The creation of **an index** to represent the degree to which any given teacher is traditional or innovative in their teaching methods. The purpose of an index is to provide a summary indicator for a more complex reality. This summary variable should be of a type that can be used in a wide range of more complex, multivariate statistical analyses. An index is useful because it is a way of converting a complex reality into a number which can then, within a data set, be used to investigate the relationship between a given index (eg level of innovation of a teacher) and any other variable, together with the changes that take place in this relationship over the course of time.
- b) **Brief contextual data** to be obtained from the school regarding the interventions that they have experienced. This will not need full blown questionnaires, but just a few questions for the teachers whose classes are to be observed and the headteacher to answer. These questions can be included in the discussions with the head and the teachers that have already been built into the procedures.

Annex 5 Trainers Manual

ESSPIN

SURVEY OF TEACHING AND LEARNING 2009

TRAINERS MANUAL

CONTENTS

CHECKLIST OF WHAT THE TRAINER HAS TO ACHIEVE DURING Training.

Before the Training

1. Purpose of Survey
2. What do the consultants have to do?
- 3 Which schools to visit and which grades to observe?
- 4 Which subjects to observe and how to select the teachers
5. Before survey; letter to SUBEP, LGEA and headteachers
6. Check instrument and materials
- 7 Code the front sheet of the classroom observation instrument
8. Discussion with the head teacher on arrival
9. Discussion with the teachers to be observed
10. Understanding the classroom observation instrument
11. Practicing the classroom observation instrument
12. After the survey visit

Before the training

Before the training you will need to make sure that you have assembled all the necessary materials to run the workshop.

These will be

- A complete classroom instrument for each school. This includes four ID sheets; four observation sheets;
- One set of instructions for each consultant
- One key for behaviour for each consultant
- Spare copies of the above
- A trainer manual for yourself
- A consultants manual for each consultant
- Additional copies of the classroom observation sheet for consultants to complete during the training; one for each consultant
- An A4 envelope for every school which the consultants in the workshop will be visiting. **You will already have put the school codes on each envelope**
- A consultants manual for each of the participants

Materials

- A flipchart
- Marker pens
- 2 black ink pens for each consultant (to be used on the survey)
- A notebook for each consultant to be used on the course

Assigning training roles

It was decided that TWO trainers would be needed for each batch of training in the States.

This approach has a number of advantages;

- It will enable the trainers to monitor the acquisition of knowledge and skills more easily
- The seriousness of the course will be underlined if there is somebody from another State
- A slightly larger number can be trained successfully at any course. It should therefore be possible to have only one training session per State
- During the course, the consultants can be divided into two groups from time to time, as indicated in the manual. The groups would be those observing the teachers and those observing the learners

Prior to the course, it will be important for the trainers to meet to assign roles;

- Who will conduct each session. Vary the voices as much as possible
- Who will be responsible for the teacher observers; who will be responsible for the learner observers?

CHECKLIST OF WHAT HAS TO BE ACHIEVED DURING TRAINING

WHAT HAS TO BE ACHIEVED	TICK WHEN YOU HAVE ACHIEVED
Purpose of survey explained; questions taken. Consultants have sufficient understanding.	
Consultants understand what they have to do on the survey	
Each consultant understands which schools to go to, and which part of the school. You have checked that they all know	
Consultants informed of letter to authorities. Given copy of letter.	
Instrument(s) and materials checked. All consultants have got right number of complete instruments and materials	
Each classroom observation instrument has to be correctly coded.	
Do consultants know what they have to say to head teachers on arrival.	
Do the consultants understand the structure of the classroom observation instrument? ie the six main areas	
Have you trained the consultants to remember the categories ?	
Do the consultants understand how many frequencies to record in a 30, 35 or 40 minute lesson?	
Have you practiced using the instrument?	
Do the consultants understand what they have to do after leaving the school?	

Purpose of the survey

The purpose of this part of the course is to explain to the consultants why the survey is taking place and why it is important. This is a good place to mention issues of confidentiality.

Purpose of survey

- The survey consists of going into two classrooms per school and using the classroom observation instrument provided.
- A total of 380 schools will be visited in the five States. Schools have been carefully selected to ensure that they are representative of all schools in the five States
- The purpose of the survey is to find out about how teachers are teaching and students are learning throughout the five states covered by ESSPIN
- This will help the state governments and the project to know what progress has been made towards the introduction of learner centred and interactive pedagogy by the beginning of the project. It will also help plan future project initiatives that will be helpful to schools and teachers

How it should be carried out

- The consultants will not be making any judgements about the school or the teachers during this visit. They will simply record what they see in the classrooms, using the instrument.
- They will not give feedback, because that would imply that they are appraising the teachers.
- All the survey results will remain confidential. Consultants will put their records of classroom observation into an envelope before they leave the school. The observations will not be shown to the head teacher.
- They will need tact and sensitivity in their dealings with headteachers and teachers.
- They will also need to convey that this is a serious

Invite questions. Discuss the issues as required to make sure that everyone understands the purpose of the survey.

Key learning points

- **Has everybody understood the purpose of the survey**
- **Do they understand why tact is necessary (treating teachers as professionals; getting them reasonably relaxed)**

- **Do they understand why feedback should not be given**
- **Do they understand what a random sample is and why only the schools in the sample should be visited?**

You could ask consultants to think about what are the differences between classroom observation on this survey visit and a normal inspector's visit. Some of the answers are;

- When inspectors go into a class normally it is either to help the teacher to improve or perhaps for appraisal of some kind.
- On the survey, no judgements will be made. The classroom observation is not to support a teacher or to appraise a teacher, but to gather data about the national situation
- Consultants will be using a classroom observation instrument that was predesigned. It will be used in all the schools in the survey.

Consultants have to understand what they have to do

The purpose of this section of the course is to give consultants a checklist of all the tasks that they have to do in the survey. At the end of the course, you could return to this list and ask the consultants whether there are any tasks they do not fully understand.

The tasks are;

Know which school or schools they have to visit, and from which grade to select teachers for observation.

Make sure that they have the right number of classroom observation instruments; check that each instrument is complete and coded correctly

Make sure that they have got the right materials to go with the questionnaire

Meet with head teacher on arrival and know what to say

Select the teachers for observation

Meet teachers to be observed and explain purpose of visit; know what to say

Administer the classroom observation instrument

Put the completed instrument in the envelope provided and bring it by hand to you on completion of the survey

You can present this to the consultants in the form of powerpoint or a written list as you please.

Reassure them that the burden is not too great and that you will be going through all the points in the training.

**Selecting which Schools should be visited and
which grades should be observed**

By the end of this session every consultant should know which schools they should visit, what grade they should observe

Assigning Schools

- Ask all consultants to turn to the list of survey schools in the back of their manual
- Tell them that they will be visiting schools in pairs. Explain that one will be observing the teacher; the other will be observing the students. Tell them why it makes the classroom observation instrument easier to handle.
- Divide the participants into pairs
- Assign to each pair of consultants the schools for which they will be responsible.
- **Tell them to underline their schools on the list at the back of the manual**

It might be a good idea to check that consultants have underlined the correct schools by reading from the list and ask consultants to indicate which school is their responsibility. It is easy for two pairs to be assigned to the same school or for some schools to be missed out.

Which Grade to Observe

- Explain that they should observe one class 2 and one class 5 if they are visiting a primary school
- Two JS2 classes if they are visiting a junior middle school

Explain why these grades have been chosen and why it is necessary to observe only a few classes;

- We cannot observe all classes in a school
- Therefore we have taken one class from the lower end of primary schools and one from near the top. It is important to observe a class from the lower end of primary school because if children do not get a good foundation in the first two years of primary school, all the rest of their educational progress will be weak.
- We have deliberately selected the middle year of junior secondary as this is possibly the most representative of this stage of education

Selecting Which Classes to Observe

By the end of this session, every consultant will know which subject they have to observe in each school they are to visit and in which grade.

Selection of subjects

Tell the consultants that we will be observing two subjects only;

- English
- Mathematics

Explain why we will be observing only those subjects;

- **ESSPIN is concentrating on literacy and numeracy throughout basic education**
- **Language and mathematics underpin the rest of the curriculum. If a child cannot master basic skills in language and mathematics, she will be handicapped in studying any other subject.**
- **Language and mathematics skills are basic for the world of work – even if you are a farmer – and open up the world for the child.**

Which subjects should be observed in which grade?

Explain that

- **If they are visiting a primary school, they can choose whether to observe English in grade 2 and Mathematics in grade 5 or vice versa.**
- **They should observe the same number of English and Mathematics classes in each grade in the primary schools they visit**
- **If they are visiting a junior middle school they will observe one English and one mathematics class in JS2**

Ask consultants to work in their pairs and select, at random, one English and one Mathematics class in each primary school they visit using the form provided in their manual.

They should then make sure that in total the number of mathematics and English classes they observe at grade 2 is equal and the same for grade 5.

You will need to move around the pairs to make sure that they have understood the task, offer advice when it is needed and check that they have completed the table on page 10 of the consultants manual correctly. Consultants will need time to copy the school details from their list of schools and complete the table.

Ask the consultants to check;

- Have they selected one English and one mathematics class in each school?
- Are there an equal number of English and mathematics classes for grade 2?
- Are there an equal number of English and mathematics classes for grade 5?

It would be wise to check at this stage that consultants know which schools they have been allocated. Go through the list of schools and ask pairs to put up their hands when their schools are read out

<h2 style="margin: 0;">Check Instruments and Materials</h2>

By the end of this session you will have made sure that the consultants have all got a complete set of instruments and materials

Hand out classroom observation instruments. Each pair of consultants should receive;

- Two key for behaviour sheets (6 pages) ie one for each consultant
- TWO teacher observation sheets for every school to be visited
- TWO learner observation sheets for every school to be visited
- FOUR front page sheets for every school to be visited
- Two sets of instructions for completing the observation sheets (one for each consultant)
- An envelope for each school to be visited. You will have put the school name and EMIS code on these envelopes before the course.

Check that each pair of consultants has the right number of instruments and envelopes

Show the consultants a complete instrument set page by page;

- **Front page with space for coding**
- **The key for behaviour sheet**
- **The observation sheet for teachers (1 page)**
- **The observation sheet for learners (1 page)**
- **The set of instructions for completing the observation sheets**
- **Check the number of envelopes that they have received is the same as the schools to which they have been assigned.**
- **Check that the envelopes which they have received have the school names and codes for the schools to which each pair of consultants has been assigned.**

Ask if any consultants have not got a complete set or have got the wrong envelopes. Give them anything missing

Coding the Front Page (ID Sheet)

By the end of this session each classroom observation instrument will have the correct code completed on the front sheet.

Tell the consultants to refer to the first page of their classroom observation sheets. Show them the ID box. (see below)

Classroom Observation ID						
State Code						<input style="width: 40px; height: 20px;" type="text"/>
School Code	<input style="width: 30px; height: 20px;" type="text"/>					
Teacher Code						<input style="width: 40px; height: 20px;" type="text"/>
Grade Code						<input style="width: 40px; height: 20px;" type="text"/>

Tell the consultants that they must use the black ink pens provided when completing the ID boxes

Give the following instructions to the consultants

- Please refer to the list of schools that you will be visiting
- You will need two ID sheets for each school
- Each pair of consultants will take two ID sheets for each school
- Put the ID sheets in groups of four. Each group will be for one school
- Tell them that we will now be completing the ID sheets row by row

Complete the first row

1. Fill in your state number in the box in the top row of each of your ID sheets
2. The state numbers are

State name	State Number
Jigawa	1
Kaduna	2
Kano	3
Kwara	4
Lagos	5

Repeat the process on all of the ID sheets. The first row is now complete on all sheets.

Complete the second row

- Tell the consultants that the school ID is found in the second row of the ID of each ID box.
- Tell them to refer to their list of schools in the table they completed on page 10 of their manual
- Tell them to find the school ID code in column 2 of the table. This is the identification number used by the State Education Management Information System for each of the schools taking part in the survey. The ID number has 6 digits.

Then tell them how to complete row 2

- **Find the first of your schools in the list.**
- **Copy the digits into the boxes on row 2 of your classroom observation ID box.**
- **You will need to do this on two sheets**
- **Repeat the process on all other ID sheets. Remember to complete TWO sheets per school**

The second row of all the ID sheets should now be complete

Complete the third row

Tell the consultants

- The third row tells us which subject you are observing when you do your classroom observation.
- Take the first school on your list. Check that you have the correct school code on both sheets. The school code should be the same on both sheets.
- On TWO ID code sheets you will write 1. That shows that you will be observing an English teacher on these sheets.

- On the TWO other ID code sheets, write 2. That shows that you will be observing mathematics teachers on these sheets.
- **Repeat the process for all the schools that you will be observing**

You will therefore have completed the third row on all your ID sheets

Complete row four

Tell the consultants that they will now complete the last row in the ID sheets

Tell them that

- They will start with primary schools.
- They should pick out all the primary schools on their list

For primary schools

Tell them that the next exercise is a little complicated but necessary. We need to know which subject is being observed for every observation because there may be important differences between subjects that we need to pick up. Moreover as we will see later there are some parts of our observation instrument that mainly deal with a language lesson, and some which deal mainly with a mathematics lesson

Tell them that they should not worry if they make a mistake. If they do make a mistake, DO NOT cross out and start again on the same sheet. Request a spare ID sheet instead. If they have to do this, they will have to copy out again what has been written in the first three rows.

Tell them we will deal with the English lessons to be observed first.

Tell them

- Take the first primary school on your list
- First take the ID sheet for the English teacher you are going to observe. This will be the sheet on which you have marked 1 in row 3.
- Refer back to their previous work (Page 10 of their manual) in which they decided which grade they would observe an English teacher in this school. Check whether it will be grade 2 or grade 5
- If they will be observing an **English teacher** in grade 2, put 1 in the box on the fourth row.
- If they will be observing an English teacher in grade 5, put 2 in the box on the fourth row.

Complete all the schools in the same way

Tell them that we will now code the mathematics lessons to be observed.

Tell them;

- Take the first primary school on your list
- If you will be observing a mathematics teacher in grade 2, put 1 in the box on the fourth row
- If you will be observing a mathematics teacher in grade 5 put 2 in the box on the fourth row.

Complete all the primary schools in the same way**Junior middle schools**

Tell them

- As you will be observing only JS2 classes this is easier.
- Put 3 in all the boxes on row 4

An example of a completed ID box

Classroom Observation ID							
State Code							1
School Code							
Teacher Code							1
Grade Code							2

Explanation

1. Row 1 shows the State code. The State is Jigawa
2. Row 2 shows the school code. The boxes show the EMIS code for the school
3. Row 3 shows the teacher code. 1 shows that we are observing an English lesson
4. Row 4 shows the grade. 2 shows that we are observing a grade 5 class in a primary school

Check that the coding has been completed successfully school by school

- Has the state code been entered in the top box?
- Has the school code been entered in the second row? Is the school code the same on the two sheets
- Is there a 1 entered on one sheet and a 2 entered in second sheet on the teacher code box on the two sheets for the school
- For primary schools is there a 1 entered on one sheet and a 2 entered on the second sheet
- For junior middle schools, is there a 3 entered on all sheets.

Having done the check, ask the consultants to staple an observation sheet onto each of the ID code sheets.

How to Conduct the Survey

Tell the consultants that they will now be trained in how to conduct the survey. They will be lead through the process step by step.

Logistics

This section to be completed after discussion with the quality team

Preparing for a school visit

Tell them that

- One of your trainers will have sent letters to the appropriate authorities before your visit. The LGA and the schools will be expecting your arrival.
- The schools will not know which classes you will observe.

Ask them to think why it is important that schools should not know in advance the classes that will be observed

Tell them that

Before you visit a school, you should do thee things

- **Make sure that you have a complete set of materials with you.** They should each have
 - a) The key for behaviour
 - b) If they are observing the teacher, they should have TWO teacher observation sheets. Please make sure that they bring the observation sheets with the correct school code for the school they will be visiting. The front page (coding sheet) should be attached to your sheets
 - c) If they are observing the learners, they should have TWO learner observation sheets. Please make sure that they bring the observation sheets with the correct school code for the school they will be visiting. The front page (coding sheet) should be attached to their sheets
 - d) An envelope with the correct school code on the outside
 - e) Two black ink pens (each consultant)
- **Study the classroom observation schedule**

Tell them

- On the day before the school visit, they should remind themselves again of the classroom observation instrument.
- Make sure that they understand the differences between all the categories.
- Try to remember as many as possible.
- **Make sure that they know how to get to the LGEA office and the school**

**Conduct of the Survey;
Meeting the head teacher on arrival**

By the end of this session, consultants will know what to say and will have practiced the interview with the head teacher in role play.

Tell them that

- They should arrive at the school when it opens in the morning
- On arrival at the school, they should go first to the office of the head teacher.
- There are several things that they must do when they get to his or her office.

Explain the following step by step

Job 1 Explain purpose of visit

Remind the head teacher of the letter that was sent.

Explain again that

- the visit is not an inspection.
- neither the head teacher nor any teacher is going to be evaluated on this visit.
- their school has been selected to take part in an important survey of teaching and learning in schools covered by the ESSPIN project in five states. The results will show us where schools are now and will help project planners to support schools in the most appropriate and useful way. 380 schools are taking part in the survey.
- All information will remain confidential. Explain that all classroom observation instruments will be put into a sealed envelope before you leave the school.

Job 2. Select teachers for observation

Tell the consultants that

- immediately before the visit they should have checked which teachers they are going to observe (Table on Page 10 of the consultant manual)
- In primary schools it will either be an English teacher in grade 2 and a Mathematics teacher in grade 5 or vice versa.
- In junior middle schools it will be one English and one mathematics teacher in JS2.

Tell them that;

- If they are at a **primary school**, they should ask to see a list of the teachers who teach English and Mathematics in **grades 2 and 5**. Choose one teacher from each subject at random. Do not let the head teacher choose for them. If there is only one teacher teaching the subject, you clearly have to select her.
- If they are at a **junior middle school**, ask to see a list of teachers who teach English and Mathematics in **grade JS2**. Choose one teacher from each subject at random. Do not let the head teacher choose for them.
- After having selected the teachers, they should tell the headteacher who they are and need to agree a time at which their lessons can be observed should be agreed.
- Ask the head teacher to take you to the two teachers and allow you to talk to them in a quiet place to explain what is to happen. Remind him that he should have a quiet, private place for them to do this.

Make sure that everybody has understood and noted down the things they are to say to the head teacher

Role Play

Then set up a role play. Choose 4 volunteers. Two should play the part of the head teacher and two the part of a consultant.

The first pair should act the part of a primary school visit

The second should play a middle school visit

Tell those who are not playing the roles to observe the role plays and to provide helpful and constructive feedback.

After each role play ask for comments or suggestions from the group. After they have made their suggestions give your own feedback.

- Has the consultant helped the headteacher to relax
- Has the purpose of the visit been explained clearly?
- Has the selection of teachers been done properly?
- Has the headteacher been invited to take the consultants to see the teachers?

Conduct of the Survey; Step 2
Meeting with the two teachers to be observed

The purpose of this session is to make sure that the consultants are able to explain the purpose of the visit to teachers in an appropriate manner

Tell the consultants that when they meet the teachers they should;

- Explain that they will be coming to observe one of their lessons. Ask their permission
- The teacher has been selected at random. Just two teachers in the school will be observed.
- The lesson observation is part of a national survey to find out how teachers are teaching throughout the five states covered by the ESSPIN project
- They will not be evaluated or appraised in the lesson. Therefore no feedback will be given. The consultant will complete a form (show the teachers the observation sheet). The same form will be used for all the schools taking part in the survey. All the consultants will do is to record what happens in the lesson.
- Tell the teacher that you will sit quietly, preferably at the back of the class, and will not interrupt the lesson
- The results of the observations will be kept confidential. They will not be shown to the head teacher
- Agree the time to observe the teacher
- Ask the teachers whether they have any questions

Invite three volunteers to role play the interview. Two will play the teachers role; one the consultants. Give the trio time to prepare. The ‘teachers’ can talk together to decide how they will play their role. The consultant should prepare in another place. Obtain feedback

When you give feedback, comment on;

- **Has the teacher been made to feel that the visit is serious but is still sufficiently relaxed to teach a normal lesson? Have they been made to feel at ease?**
- **Does the teacher understand and accept the purpose of the observation**

- Has all the information been conveyed?
- Has a timetable been agreed

Conduct of the Survey; Step 3
Understanding the Classroom Observation Instrument

The purpose of this session is to enable the consultants to understand the classroom observation instrument. By the end of the session, the consultants will know the structure of the instrument, have more or less memorised the different categories, and understand what each category means.

Step 1 Explain the structure of the instrument

Ask the consultants to refer to the key to behaviour and the classroom observation sheets

- Explain that the instrument has six main sections. Draw them on the whiteboard or blackboard and label them.
- Get them to note that three are for observing teachers and three for observing learners
- Get them to note that both the teacher and learner observation sheets have three parts; how the classroom is organised (A); talk(B); activity(C).

How the class is organised by the teacher
How the teacher is talking
Teacher pedagogic activity
Organisation of learners for learning
Learner talk
Learner activity

Ask the consultants to study the six sections. Then rub out your diagram and ask the consultants to write out the six sections from memory.

Ask them whether they succeeded in remembering the sections

Ask them why they think those three sections were chosen

- They reflect the three most fundamental aspects of the classroom
- The quality of teaching depends on how the class is organised for learning; the quality of talk that goes on; and the quality of activities that learners are asked to do.

Allow discussion. It will help participants understand the instrument as a whole

Step 2. Explain and memorise the categories

The group will now divide into those who are observing learners and those who are observing teachers

Tell the consultants that in each section we will be observing a few things only. The things we observe are called observation categories. We will not be looking for anything else.

- Firstly, the **organisation of the class. Explain and discuss the three categories using the Key for Behaviour. Take time over this task. It will need discussion. Answer any questions. Be prepared to ask consultants questions to find out whether they are understanding. You could use the traffic lights approach to find out whether all is clear.**
- Ask the consultants to put away the observation sheet and write the three categories (ie things to look for) on a sheet of paper. Ask them if they succeeded in remembering all three of the categories.
- Ask them to describe each category in their own words. Get them to read out their descriptions. Ask others to give feedback. Give feedback yourself.
- **Repeat the process for each of the other two sections**

You will find that this will take some time. Do not try to rush through this session. Take time to answer all questions

Stress that they do not need to have to remember all the categories perfectly . It just helps a lot if they are very familiar with them

Step 3. Understanding how the whole instrument works

The purpose of this session will be to try to ensure that all consultants have a sound understanding of the basic themes running through the observation instrument

Explain that the instrument has a number of underlying themes. If consultants understand the basic themes, they will be able to observe more accurately.

Explain that the basic themes are;

- Differences between whole class, group and individual work
- Open and closed approaches to the generation of knowledge and understanding in learners

•

Whole class, group work, and individual work

Explain that we will now think about these differences in more detail.

Explain that at first sight the differences seem obvious, but as the notes attached to the categories in the key to behaviour try to make clear, everything is not quite as clear as it seems.

Firstly, we can give brief definitions. This might best be done on a powerpoint which can be left for consultants to refer to for the rest of the session on classroom observation

- **Whole class;** all learners are doing the same thing. This can be either listening to the teacher or a student who has been asked to work on the blackboard. It could be when learners are doing the same exercise for which there is only one correct answer or answers.
- **Group work;** learners are physically organised in groups and are talking to each other about a task set by the teacher or, very occasionally a task which they have set themselves
- **Individual work;** learners are working on their own task; writing in their own words; solving their own mathematical problems; engaged in an activity which they have to plan themselves eg measuring the size of something in mathematics; finding out information from the textbook or other sources in English

Tell the consultants that we will now practice a little. Divide them into pairs or groups of four.

EXERCISE

Ask each group or pair to specify whether the following are whole class, group or individual work. Do not of course give them the answers

- Learners organised physically in groups; all listening to the teacher (**Whole class**)
- Learners organised physically into groups, engaged in a class discussion (**Whole class**)
- Learners organised physically into groups, but working silently (**Could be whole class or individual work; what is the difference?**)
- Learners working in their exercise books solving mathematics problems set by the teacher (**Whole class**)
- Learners are measuring the area of their desks with a tape measure (**Individual; yes**)

they are all engaged on the same task, but they having to work out the process for themselves using a tape measure) This example shows that sometimes there is room for doubt in classroom observation. Not all observers will ever record the same lesson in exactly the same way.

- Learners working in their exercise books drawing a picture of their house (**Individual**)
- Learners filling in blanks. They have to choose the words given by the teacher (**Whole class**)
- Learners filling in blanks; they can choose their own words to fill in the blanks (**Individual**)

You can choose any other examples you wish

Ask consultants to note down which they think is the manner in which the class is organised in each case and why

.Get feedback. Concentrate on the reasons why each activity is a particular form of classroom organisation

Open and closed knowledge

Give an introduction

A teacher dominated environment often lays great stress on closed knowledge ie factual recall or other forms of knowledge for which there is only one correct answer. The learner does not have to think for herself or use her knowledge in any way.

A learner centred environment will still need factual recall (think of the multiplication tables) but there will be more emphasis on creating situations where there is more than one correct answer, where the learner has to make decisions as to what to write; what to say or do in a group discussion; how to report; how to measure an object etc. There will often be an effort to apply knowledge or to use knowledge and understanding.

Note that whole class teaching can be compatible with an open approach to knowledge in which the learner has to think for herself or himself. A skilled teacher can generate a very stimulating discussion with a whole class through the use of open questions.

Take questions. Spend time on discussion if necessary

Explain that

- We have simplified this complex area in our instrument. There are a number of categories in which illustrate that a closed approach is being used. Others which show a more open approach.

Then ask them to group the categories in three columns

- Closed approach
- Open approach
- Could be either

Teacher Observation

Category	Is the teacher teaching in a closed way	Is the teacher teaching in an open way	Could be either
Whole class teaching	Usually		X
Group work		X	
Individual work		X	
Teacher silent			X
Teacher telling	Usually		X
Leading chanting	X		
Closed questioning	X		
Open questioning			X
Closed feedback	X		
Open feedback			X
Praising			X
Reprimanding	Often		X
No pedagogic activity	X		
Observing class	Often		X
Writing on blackboard	Often		X
Demonstrating or displaying work		Often	X
Moving around amongst students		X	
Participating in group discussion		X	
Teacher using textbook			X
Teacher using		Often	X

improvised materials			
Teacher using charts or supplementary readers		Often	X
Teacher marking books of learners	X if just giving ticks or marks		X if explaining errors or commenting on work

Lead discussion of the findings

- Take each category one by one. Get responses
- If there is disagreement, explore why. Get consultants to give reasons for their choices
- Concentrate on the categories which could be either. Explore the circumstances in which they could be closed and in which they could be open
- Get the consultants to note those categories which are always or nearly always closed
- Get the consultants to note those categories which are always or nearly always open
- Ask them what they think the best methods of teaching and learning are.
- **STRESS THAT THEY WILL BE RECORDING ONLY WHAT THEY SEE. THEY MUST NOT TRY TO MAKE A LESSON APPEAR BETTER THAN IT IS.**

Learner observation

Category	Is the teacher teaching in a closed way	Is the teacher teaching in an open way	Could be either
Whole class	usually		X
Learners working as individuals		X	
Learners working in groups or pairs		X	
Learners silent			X
Learners chanting	X		
Answering closed question	Usually		
Answering open question		X	

Questioning to clarify task		There will e more such questions in an open, friendly classroom	X
Working in groups or pairs about the lesson		X	
Reporting results of group discussion		X	
Learners chattering			X important to record because we want to know how much time is wasted
Copying from blackboard	X Usually		
Listening to teacher or learner			X
Doing exercises set by teacher	X		
Doing mathematics activities		X	
Writing in own words		X	
Reading		Often	X
Group discussion		X	
Group presentation		X	
Singing, dancing etc			X
No activity related to the lesson			X We are interested in amount of time wasted

Lead discussion of the findings

- Take each category one by one. Get responses
- If there is disagreement, explore why. Get consultants to give reasons for their choices
- Concentrate on the categories which could be either. Explore the circumstances in which they could be closed and in which they could be open
- Get the consultants to note those categories which are always or nearly always closed
- Get the consultants to note those categories which are always or nearly always open

- Ask them what they think the best methods of teaching and learning are.
- **STRESS THAT THEY WILL BE RECORDING ONLY WHAT THEY SEE. THEY MUST NOT TRY TO MAKE A LESSON APPEAR BETTER THAN IT IS.**

Step 4. How to fill in the observation sheet

The group will now come together

Tell the consultants to read the instructions for filling in the observation sheet.

Stress that

- every four minutes they will have to put a tick in each of the three sections. In each section they will tick one box.
- At the end of a 40 minute lesson there will be 10 ticks in each section ie 10 in A, 10 in B , 10 in C
- If the lesson finishes earlier than 40 minutes, complete their last observation, and then put a line under the last observation. They do not have to do this if they have observed a 40 minute lesson
- A sheet will not be completed correctly if it has the wrong number of ticks. Too many or too few are equally inaccurate.
- If consultants check their sheets after the lesson or after they have left the school and find a few small errors in the number of ticks, **DO NOT** attempt to correct. They will not be able to remember what happened in sufficient detail.

Give them an example on the blackboard, or flipchart. EG

The class is organised as a whole class

The teacher is talking to the class

The teacher is writing on the blackboard while he talks

(Most of) the learners are all looking at the teacher

The class is silent

The students are observing teacher activity (ie the teacher writing on the blackboard)

Ask consultants which boxes should be ticked

Boxes 1 in section 1, 2 in section 2, 3 in section 3 of the teacher observation sheet will be ticked

- **Boxes 1 in section 1, 1 in section 2 and 2 in section 3 of the learner observation sheet will be ticked**

Ask whether they have any questions so far.

EXPLAIN A COMMON ERROR

SOME OBSERVERS THINK THAT THEY HAVE TO REMEMBER EVERYTHING THAT HAS HAPPENED IN THE FOUR MINUTES SINCE THE LAST OBSERVATION. THIS IS NOT THE CASE

IN THIS METHOD THE OBSERVER CHECKS HIS OR HER WATCH AND DECIDES THE MOMENT TO RECORD AN OBSERVATION. THE BOXES SHOULD BE TICKED ACCORDING TO WHAT IS HAPPENING AT THAT MOMENT ONLY

Tell them that they will now practice filling in the grid. This will make the procedure clear.

Simulation of Classroom Observation

During this session the consultants will practice filling in the observation sheet. The trainer will give a lesson to the consultants who will act as learners. Every so often, you will stop and ask the consultants to fill in the right boxes in the grid. You will not try to do this every three minutes. You can use the lesson below. By the end of the session, consultants will be able to recognise classroom situations according to the categories in the observation sheets

Firstly explain what you are going to do. Tell the consultants to watch you all the time even when they are engaged in discussion ***Give each of the consultants a spare observation sheet.***

Then conduct the following 'lesson'

Make sure that the consultants are all facing you and ready to begin.

'Today class we are going to talk about football. We are going to think about the game and more particularly whether footballers really should be paid the vast salaries that they receive.

Stop the talk. Ask the supervisors to fill in the top line of the grid.

They should fill in;

Teacher has organised learners as a whole class.

Teacher telling

Teacher observing class when talking

Learners organised as a whole class

Learners silent

Learners observing teacher activity

Continue the lesson. 'Now lots of people think that footballers are overpaid. After all they only kick a ball round the football field. But other people think that they give entertainment to millions of people and TV companies make a lot of money from their efforts, so that they should be well paid. Some people say that top footballers should be well paid because they have a very rare gift of being able to play the game better than anybody else. Others say that we should think about fairness in a society. It is not fair that some become millionaires while most people have to think about every naira. What do you think?

I want you now to divide into groups (organise the groups) and discuss whether footballers are over paid. Put 'Are footballers over paid' on the blackboard or flipchart.

Wait until the groups are organised and beginning to talk. Stay at the front. Then stop the talk and ask supervisors to fill in the grid to show what was happening before the talk stopped

They should fill in

Organised in groups or pairs

Teacher silent

Teacher observing class

Learners organised in groups

Learners talking in groups about the lesson

Group discussion.

Check answers. Point out that each group was discussing the same subject, but discussing it in its own way. Therefore the last category is correct. If they were organised in groups (physically) but copying off the blackboard or doing the same exercise from the mathematics book, the right category would be 1 or 2 from the last section

Carry on with group work. Move away from the desk. Sit with a group and begin to give them support.

Stop discussion

The right ticks this time are the same as above except for the teacher activity. Teacher has now moved away from his desk and providing support to an individual or group.

Let the discussion carry on for a bit. Then stop the discussion and ask the rapporteur to report back. Wait until the rapporteur has started speaking and stop the lesson

This time the ticks should read

Organised in groups

Teacher silent

Teacher observing the class

Learners organised in groups

Reporting the results of group discussion

Group presentation

Let the rapporteur finish and then invite comment from the class. Wait until somebody is putting a point to the rapporteur and then stop the class.

Start class. Ask the class an open question. Eg 'To what extent do you think that the points made by the rapporteur were correct?'

Ask what teacher activity has taken place. (**Open question**). Mark in the next row of ticks

Ask the class to get back to their original positions. Write on the blackboard ' Write half a page giving your views on whether footballers are overpaid or not' Wait until the class is writing. Then stop the lesson and ask them to fill in the next row of ticks.

Ask the group where they would have placed the ticks if you were writing an answer on the blackboard as to whether footballers are overpaid and asked the class to copy it down

<p style="text-align: center;">After the lessons have been Observed</p>
--

Tell the consultants to thank the teachers

Put the completed questionnaires in the envelope

Thank the head teacher for his co-operation

Leave the school.

The survey visit is now completed. Well done.

Remember to retain the observation sheets and the attached ID sheets, and return them to the State quality adviser as soon as possible after the last school has been visited.

Appendix 1 List of Schools in the Survey

Annex 6 Consultants Manual

Manual for Consultants

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Appendices

Appendix A The list of schools

Appendix B The Classroom Observation Instrument

INTRODUCTION

This manual was prepared for use by consultants participating in the Survey of Teaching and Learning in 2009. .

The manual will also be applicable to any further survey that is undertaken

The main aim of the first, baseline survey is to find out how teachers teach and how learners learn in a sample of schools in the five states covered by the ESSPIN project. The States are Jigawa, Kaduna, Kano, Kwara and Lagos. There are 380 schools in the sample.

The main aim of subsequent surveys will be to find out whether there have been any changes in teaching and learning since the baseline, and, if possible, to find out why

STRUCTURE OF THE MANUAL

The manual has four parts.

1. The *first* part describes **WHAT TAKES PLACE AT THE TRAINING SESSION FOR CONSULTANTS.**
2. The *second* part describes **WHAT TASKS MUST BE CARRIED OUT BEFORE THE CONSULTANT VISITS A SCHOOL FOR THE SURVEY**
3. The *third* part describes **WHAT TASKS THE CONSULTANT MUST CARRY OUT ON THE SURVEY DAY AT THE SCHOOL.**
4. The *fourth* part describes **WHAT THE CONSULTANT MUST DO AFTER LEAVING THE SCHOOL.**

It is very important that you go through this document BEFORE ACTUALLY VISITING THE SCHOOLS TO WHICH TO WHICH YOU HAVE BEEN ASSIGNED.

Please note that quick checklists have been included at the end of each section. These will help you to make sure that you have completed all the tasks of the survey successfully.

PART I: AT THE TRAINING SESSION

In this part of the manual, you will be led step by step through your training programme.

This will enable you to have a record of everything that you did and were taught during training.

The manual has spaces where you can write notes on each session of the training.

Do ask questions if anything in the training is unclear to you. If something is unclear to you, it is probably unclear to other people

FIRST SESSION;

PURPOSE OF THE SURVEY AND HOW IT SHOULD BE CARRIED OUT

The purpose of this session is to explain the purpose of the survey and how the purpose of the survey affects the way it should be carried out

Purpose of Survey

- The survey consists of going into two classrooms per school and using the classroom observation instrument provided.
- A total of 380 schools will be visited in the five States. Schools have been carefully selected to ensure that they are representative of all schools in the five States. That means that what we find out in these schools will be true for all the schools in the five States. **It is therefore vital that all these schools are visited and only these schools.**
- The purpose of the survey is to find out about how teachers are teaching and students are learning throughout the five states covered by ESSPIN
- This will help the state governments and the project to know what progress has been made towards the introduction of learner centred and interactive pedagogy at the beginning of the project. The results of the survey will also help government and project staff to plan future project initiatives that will be helpful to schools and teachers

How it should be carried out

- You will not be making any judgements about the school or the teachers during the visits. You will simply record what you see in the classrooms, using the observation instrument provided.
- You will not give any feedback to teachers, because that would imply that you are appraising them.
- All the survey results will remain confidential. You will put your records of classroom observation into an envelope before you leave the school. The observations will not be shown to the head teacher.
- You will need to be tactful and sensitive in your dealings with teachers and head teachers. They will probably think you have come to inspect them. Put them at their ease, because if teachers are worried and anxious they will not show you their normal kind of lesson
- At the same time, you should convey that this is an important survey which will help the government to provide the best kind of support to schools

Do you have any questions?

Think about the issues mentioned above.

What are the differences between classroom observation on this survey visit and a normal visit by a school inspector?

Why are there these differences?

Session 2**What you have to do on the survey**

The purpose of this session of the course is to give you a checklist of all the tasks that you have to do in the survey.

At the end of the course, you will be asked to return to this list and asked whether there are any tasks you do not fully understand.

Checklist of Tasks Taught during the Course**By the end of the course you will**

- Know which schools you have to visit.
- Have made sure that you have the right number of classroom observation instruments;
- Have checked that each instrument is complete and coded correctly
- Have made sure that you have got the right materials to go with the observation instrument
- Know how to meet with head teacher on arrival and know what to say
- Have selected the grades and subjects to observe in each school
- Know how to select the teachers for observation
- Know how to meet teachers to be observed and explain purpose of visit; know what to say
- Know how to use the classroom observation instrument
- Know what to do after you leave the schools

Session 3

Assignment of schools

Selection of grades, classes and subjects to observe

By the end of this session you will know which schools you should visit, what grade you should observe, and in what subject.

Assigning schools

Please turn to the list of schools of schools to be surveyed at the back of your manual

- Each school will be visited by two consultants. One consultant will observe what the teacher is doing. The other will observe what the learners are doing.
- Your trainers will firstly divide you into pairs
- Your trainers will then assign you to the schools to be visited. This will entail some discussion
- **As you are assigned schools, each pair will undermine their schools in the list at the back of this manual**
- **After the exercise is complete, your trainers will check through all the schools to be visited in your State to make sure that all schools have been assigned to a pair of consultants, and that no school has been assigned to more than one pair**

Which grades should you observe in each school?

Please check the list of schools for which you will be responsible. Check that you know which primary schools are and which junior middle schools are.

You will observe;

- One class in Grade 2 and one class in grade 5 in primary schools
- Two classes in Grade JS2 in junior middle schools

Which classes should you observe?

You will be observing two subjects only;

- English
- Mathematics

Selection of classes to observe

- **When you visit a primary school, you can choose whether to observe English in grade 2 and Mathematics in grade 5 or vice versa.**
- **You should observe the same number of English and Mathematics classes in each grade in the primary schools you visit**
- **When you visit a junior middle school you will observe one English and one mathematics class in JS2**

Now work in your pairs to select the classes to observe in primary school by completing the table below

You should select one English class and one Mathematics class for each school. They can be either grade 2 or grade 5.

You should make sure that the total number of mathematics and English classes that you observe in grade 2 is equal

You should make sure that the total number of mathematics and English classes that you observe in grade 5 is equal

Selection of classes and subjects

Name of school	State EMIS code of school	English; which grade?	Mathematics; which grade?

Check once you have done the exercise

- Have you selected one English and one mathematics class in each school?
- Are there an equal number of English and mathematics classes for grade 2?
- Are there an equal number of English and mathematics classes for grade 5?

You will need to refer to this table before you visit each school to remind you which subject you have selected for each grade

Reminder

In junior middle schools you will observe one English and one mathematics class in JS2

Session 4**Examining and checking the Package of Materials**

By the end of this session you will have made sure that you have all got a complete set of instruments and materials

Your trainers will now hand out the classroom observation instruments and other materials that you will need

Each pair of consultants should receive the following;

- Two key for behaviour sheets (7 pages); one for each consultant in the pair
- FOUR front pages for every school you have to visit. The coding will be completed on this sheet
- TWO observation sheet for teachers for every school to be visited
- TWO observation sheet for learners for every school to be visited
- TWO sets of instructions for completing the observation sheets (one for each consultant in the pair)
- ONE envelope for each school to be visited

Your trainers will show you a complete set of instruments and materials page by page;

- **Front page with space for coding**
- **The key for behaviour sheet**
- **The observation sheet for teachers**
- **The observation sheet for learners**
- **The set of instructions for completing the observation sheets**

Please check

- **That you have received the correct number of sheets and instructions**
- **that the number of envelopes you have received is the same as the number of schools to which you have been assigned**

Your trainers will now give each consultant TWO black ink pens which you must use when making your observations on the observation sheets. One pen is a spare.

Please check that both pens you have received are working.

Now check your own pack

Quick Checklist

Did you receive the number of envelopes equal to the number of schools that you will be testing?

2. Have you got a Key for Behaviour sheet?
3. Have you got two observation sheets for each school you will be visiting?
4. Have you got two front pages for every school you will be visiting?
5. Have you got a set of instructions for completing the observation sheet?
6. Have you got two black ink pens?

If the answer to any of the above questions is 'No', please inform the Trainers. If all the answers are 'Yes', you may go on to the next section.

Session 5

Coding the Front Page

By the end of this session each classroom observation instrument will have the correct code completed on the front sheet.

Please refer to the front page. You will see that it has an ID box as shown below

Classroom Observation ID							
State Code							<input style="width: 40px; height: 25px;" type="text"/>
School Code	<input style="width: 40px; height: 25px;" type="text"/>						
Teacher Code							<input style="width: 40px; height: 25px;" type="text"/>
Grade Code							<input style="width: 40px; height: 25px;" type="text"/>

Please refer to the list of schools that you will be visiting

You will need FOUR ID sheets for each school. Two will be attached to the teacher observation sheets. Two will be attached to the learner observation sheets.

You will now put the correct codes on each sheet. You will take one school at a time. USE THE BLACK INK PENS WITH WHICH YOU HAVE BEEN PROVIDED TO FILL IN THE CODES. PLEASE WRITE VERY LEGIBLY

Please refer to the list of schools that you will be visiting.

Step 1; Complete the first Row

1. Fill in your state number in the box in the top row of each of your ID sheets
2. The state numbers are

State name	State Number
Jigawa	1
Kaduna	2
Kano	3
Kwara	4
Lagos	5

Repeat the process on all of the ID sheets. The first row is now complete on all sheets.

Step 2; Complete the School ID

The school ID is found in the second row of the ID of each ID box.

At the left of the list of schools in the survey, you will find a column called School ID. This is the identification number used by the State Education Management Information System for each of the schools taking part in the survey. The ID number has SIX digits.

Find the first of your schools in the list. Copy the digits into the boxes on row 2 of your classroom observation ID box. You will need to do this on FOUR sheets

Repeat the process on all other ID sheets. Remember to complete FOUR sheets per school

PLEASE CHECK THAT THE SCHOOL CODE HAS BEEN COREECTLY COPIED. IT IS VERY EASY TO WRITE THE WRONG NUMBER OR WRONG LETTER

Please check that every ID sheet has been given a school code.

Step 3; Complete the third row

The third row tells us who you are observing when you do your classroom observation.

IN PAIRS DECIDE WHICH ONE OF YOU WILL BE OBSERVING THE TEACHER AND WHICH WILL BE OBSERVING THE LEARNERS.

PLEASE TAKE TWO FRONT PAGE SHEETS FOR EACH SCHOOL

- Please take the first school on your list.
- Check that you have the correct school code on both sheets. The school code should be the same on both sheets.
- On one ID code sheet you will write 1. That shows that you will be observing an English lesson on this sheet.
- On the other ID code sheet, write 2. That shows that you will be observing a mathematics lesson on this sheet.

Repeat the process for all the schools that you will be observing. Make sure that you have filled in all the boxes in row 3

Step 4 Complete the fourth row

You will now complete the fourth row. This will tell us which grade you will be observing

Fill in the codes for the primary schools first and then the junior middle schools.

Read through the instructions below BEFORE YOU START COMPLETING YOUR BOXES

Primary schools

- **Take each school in turn. Go to your first school on the list**
- First take the ID sheet for the English teacher you are going to observe. This will be the sheet on which you have marked 1 in row 3.
- Refer back to your previous work in which you decided which grade you would observe an English teacher in this school. Check whether it will be grade 2 or grade 5
- If you will be observing an **English teacher** in grade 2, put 1 in the box on the fourth row.
- If you will be observing an English teacher in grade 5, put 2 in the box on the fourth row
- Do the same for the **Mathematics teacher** you will be observing in this school. If you are observing the mathematics teacher in grade 2, put 1 in the box on the fourth row. If you are observing a mathematics teacher in grade 5, put 2 in the box on the fourth row
- **Repeat the process for all primary schools**

Junior middle schools

As you will be observing only JS2 classes this is easier.

Put 3 in all the boxes on row 4

An example of a completed ID box

Classroom Observation ID						
State Code						1
School Code						
Teacher Code						1
Grade Code						2

Explanation

5. Row 1 shows the State code. The State is Jigawa
6. Row 2 shows the school code. The boxes show the EMIS code for the school
7. Row 3 shows the teacher code. 1 shows that we are observing an English lesson
8. Row 4 shows the grade. The figure 2 shows that we are observing a grade 5 class in a primary school

Check that the coding has been completed successfully school by school

- Has the state code been entered in the top box
- Has the school code been entered in the second row. Is the school code the same on the four sheets for each school
- Is there a 1 entered on two sheets and a 2 entered on two sheets in the teacher code box for each school (Third row)
- For primary schools is there a 1 entered on two sheets and a 2 entered two sheets for each school (Fourth row)
- For junior middle schools, is there a 3 entered on all sheets (Fourth row)

Having done the check, staple an observation sheet onto each of the ID code sheets.

<p>Session 6</p> <p>Logistics</p>

In this session, you will discuss the timing of the visits to schools, as well as transport, accommodation and subsistence arrangements.

Timing of school visits

Your trainers will discuss the timeframe within which the survey has to take place.

They will also give you a date by which all completed forms have to be returned.

Please summarise the results of this discussion by completing the table below.

Name of school	LGA	Town in which you will find LGEA office	Date of visit

<p>Quick Checklist 1D</p> <ol style="list-style-type: none"> 1. Do you know how to get to the school? 2. Do you know when to visit the school? 3. Do you know the name of the School Head?
--

If the answer to any of the above questions is 'No', please talk to the Trainer. If all the answers are 'Yes', you may go on to the next section.

Part Two

Conducting the Survey

In Part 2 of this training course you will learn how to conduct the survey.

PREPARING FOR A SCHOOL VISIT

One of your trainers will have sent letters to the appropriate authorities before your visit. The LGA and the schools will be expecting our arrival. The schools will not know which classes you will observe.

Before you visit a school, you should do three things

- **Make sure that you have a complete set of materials with you.** You should have
 - a) A key for behaviour sheet
 - b) Instructions how to complete the sheets
 - c) If you are observing the teacher, you should have TWO teacher observation sheets. Please make sure that you bring the observation sheets with the correct school code for the school you will be visiting. The front page (coding sheet) should be attached to your sheets
 - d) If you are observing the learners, you should have TWO learner observation sheets. Please make sure that you bring the observation sheets with the correct school code for the school you will be visiting. The front page (coding sheet) should be attached to your sheets
 - e) An envelope with the correct school code on the outside
 - f) Two black ink pens

- **Study the classroom observation schedule**

On the day before your school survey visit, you should remind yourself again of the classroom observation instrument. Make sure that you understand the differences between all the categories. Try to remember as many as possible.

- **Make sure that you know how to get to the school**

Conduct of the survey; step 1; meeting the headteacher on arrival

By the end of this session, you will know what to say and will have practiced the interview with the head teacher in role play.

On arrival at the school, you should go first to the office of the head teacher. There are several things that you must do when you get to his or her office.

Job 1

Remind the head teacher of the letter that was sent.

Explain that the visit is not an inspection. Explain that neither the head teacher nor any teacher is going to be evaluated on this visit. Their school has been selected to take part in an important survey of teaching and learning in schools covered by the ESSPIN project in five states. The results will show us where schools are now and will help project planners to support schools in the most appropriate and useful way. 350 schools are taking part in the survey.

All information will remain confidential. Explain that all classroom observation instruments will be put into a sealed envelope before you leave the school.

Job 2

Select the teachers whom you are going to observe.

Immediately before the visit you should have checked which teachers you are going to observe. Please refer to the table you completed above on page of this manual

In primary schools it will either be an English teacher in grade 2 and a Mathematics teacher in grade 5 or vice versa.

In junior middle schools it will be one English and one mathematics teacher in JS2.

If you are in a primary school

- Ask to see a list of the teachers who teach English and Mathematics in **grades 2 and 5**.
- Choose one teacher from each subject at random.
- Do not let the head teacher choose for you

.If there is only one teacher teaching the subject, you clearly have to select him or her.

If you are in a junior middle school

- Ask to see a list of teachers who teach English and Mathematics in **grade JS2**.
- Choose one teacher from each subject at random.

Do not let the head teacher choose for you.

After having selected the teachers, the time at which their lessons can be observed should be agreed.

You should inform the head teacher which two teachers they have chosen to observe. Ask him or her to take you to the two teachers and allow you to talk to them in a quiet place to explain what is to happen. Remind him that he should have a quiet, private place for you to do this.

Role play

Read through the above instructions for meeting with the headteacher carefully.

Your trainer will now conduct a role play to practice the interview with the headteacher.

If you volunteer to play the role of either the headteacher or the consultant, you will be given time to prepare.

If you have not volunteered, you should also read through the instructions carefully. Your job will be to watch the role play and offer constructive feedback on the performance of the consultant. This will help everybody to learn how to conduct the interview successfully.

Conduct of the Survey step 2; Meeting with the teachers to be observed

The purpose of this session is to make sure that you are able to explain the purpose of the visit to teachers in an appropriate manner

When you meet the two teachers you should explain that;

- You will be coming to observe one of their lessons. Ask their permission
- The teacher has been selected at random. Just two teachers in the school will be observed.
- The lesson observation is part of a national survey to find out how teachers are teaching throughout the five states covered by the ESSPIN project
- The teachers will not be evaluated or appraised in the lesson. Therefore no feedback will be given. Explain that you will complete a form (show the teachers the observation sheets). The same form will be used for all the schools taking part in the survey. All you will do is to record what happens in the lesson.
- You will sit quietly, preferably at the back of the class, and will not interrupt the lesson
- The results of the observations will be kept confidential. They will not be shown to the head teacher

Agree the time to observe the teacher

Ask the teachers whether they have any questions

During this interview you should make sure that the teacher understands that this is a serious survey. However, you should try to make the teachers feel at ease. Start with a bit of ice breaking conversation. Be friendly. Smile. The teacher will think that you are inspector (whatever you say). If you can relax the teacher, you are more likely to see a normal lesson.

There will now be another role play to practice the teacher interview

Conduct of the Survey; Step 3

Understanding the classroom observation instrument

The purpose of this session is to enable you to understand the classroom observation instrument. By the end of the session, you will know the structure of the instrument, have more or less memorised the different categories, and understand what each category means.

Structure of the Instrument

Please refer to the Key to Behaviour and your classroom observation sheet

You will note that both the teacher observation sheet and the learner observation sheet both have three sections

The teacher observation sheet has three sections;

- How the class is organized by the teacher (labelled A)
- How the teacher is talking (labelled B)
- Teacher pedagogic activity; what the teacher is doing (labelled C)

The learner observation sheet also has three sections;

- How the learners are organized for learning
- How the learners are talking
- Learner activity; what they are doing

Memorise the three areas on your observation sheet.

Write them in your notebooks without looking at the manual.

Did you get them right?

The categories of observation

In each section of the observation sheet, we will only be looking for a few things. It is impossible to record everything that takes place in the classroom. The things we will be looking for are called observation categories. We will not be looking for or recording anything else.

You will now have an opportunity to get familiar with the categories.

You will now split into two groups; those who will be observing the teachers; and those who will be observing the learners.

Organisation of the class

.There are three categories.

Please refer to the Key for Behaviour sheet.

Your trainers will now explain the meaning of the three categories so that you can distinguish clearly between them. Please make notes in your notebook if you find that this helps you to understand and remember the key differences between the categories and

Please ask questions if anything is unclear.

You will find that discussion is needed to clarify the differences between the three categories.

After the discussion has been completed, put away the Key to Behaviour and write down in your notebook

- The names of the three categories
- How you will recognize each one in the classroom

The other two sections

The same procedure will be followed for the other two sections; how teachers and learners talk; how teachers and learners act.

You do not need to have a perfect memory of all the categories. It just helps a lot if you are very familiar with them.

You do need to know and understand the differences between the categories

Understanding the categories a little more deeply

The purpose of this session will be to try to ensure that you have a sound understanding of the basic themes running through the observation instrument

If you understand the basic themes, you will be able to observe more accurately.

The themes are;

- Differences between whole class, group and individual work
- Open and closed approaches to the generation of knowledge and understanding in learners

Whole class, group work, and individual work

At first sight the differences seem obvious, but as the notes attached to the categories in the Key to Behaviour try to make clear, everything is not quite as clear as it seems.

- **Whole class**; all learners are doing the **same thing**. This can be either listening to the teacher or a student who has been asked to work on the blackboard. It could be when learners are doing the same exercise for which there is **only one correct answer or answers**.

- **Group work;** learners are **physically organised in groups and are talking to each other about a task set by the teacher or, very occasionally a task which they have set themselves**
- **Individual work;** learners are working on their **own task**; writing in their own words; solving their own mathematical problems; engaged in an activity which they have to plan themselves eg measuring the size of something in mathematics; finding out information from the textbook or other sources in English

Study the definitions given above. Then in the table below say whether the class is organized as a whole class (A), in groups (B) or learners are working as individuals (C). Work in pairs.

Activity in the classroom	How is class organized? A, B, or C
Learners organised physically in groups; all listening to the teacher	
Learners organised physically into groups, engaged in a class discussion	
Learners organised physically into groups, but working silently	
Learners organised physically into groups, but working silently	
Learners working in their exercise books solving mathematics problems set by the teacher	
Learners working in their exercise books drawing a picture of their house	
Learners filling in blanks. They have to choose the words given by the teacher	
Learners filling in blanks; they can choose their own words to fill in the blanks	

Open and closed knowledge

A teacher dominated environment often lays great stress on closed knowledge, that is, factual recall or other forms of knowledge for which there is only one correct answer. The learner does not have to think for herself or use her knowledge in any way.

A learner centred environment will still need factual recall (think of the multiplication tables) but there will be more emphasis on creating situations where there is more than one correct answer, where the learner has to make decisions as to what to write; what to say or do in a group discussion; how to report; how to measure an object etc. There will often be an effort to apply knowledge or to use knowledge and understanding.

We have simplified this complex area in our instrument. There are a number of categories in which illustrate that a closed approach is being used. Others which show a more open approach.

Exercise; Recognising open and closed approaches to teaching and learning

You will keep in your two groups. Each group will divide into two.

The teacher group will work together to complete the table below

Category	Is the teacher teaching in a closed way	Is the teacher teaching in an open way	Could be either

The learner group will work together to complete the table below

Category	Is the learner learning in a closed way	Is the learner learning in an open way	Could be either

The two groups will now feedback and compare their findings

How to fill in the observation sheet

Please refer to the instruction sheet

- Every four minutes you will put a tick in each of the three sections for which you are responsible. In each section you will tick one box.
- At the end of a 40 minute lesson there will be 10 ticks in each section ie 10 in A, 10 in B , 10 in C
- The lesson may end earlier than after 40 minutes. If so draw a line under where you have finished. For example if your lesson finishes after 30 minutes, you will have put ticks in only 7 rows.
- A sheet will not be completed correctly if it has the wrong number of ticks. Too many or too few are equally inaccurate.
- If you check your sheets after the lesson or after they you have left the school and find a few small errors in the number of ticks, DO NOT attempt to correct. You will not be able to remember what happened in sufficient detail.

Your trainer will now give you an example on the flip chart

NOTE THAT IN THIS METHOD THE OBSERVER CHECKS HIS OR HER WATCH AND DECIDES THE MOMENT TO RECORD AN OBSERVATION. THE BOXES SHOULD BE TICKED ACCORDING TO WHAT IS HAPPENING AT THAT MOMENT ONLY. YOU DO NOT HAVE TO REMEMBER EVERYTHING THAT HAS HAPPENED IN THE LAST FOUR MINUTES SINCE YOUR LAST SET OF OBSERVATIONS

Observing a lesson

Prepare to observe the lesson

- Arrive at the classroom just before the lesson is about to begin. **Make sure that you have the right classroom observation instrument with you.** Look at the third line of

the classroom observation ID. If you are observing an English class the number should be 1; if you are observing a mathematics class the number should be 2;

- When you enter the classroom go quietly to the back of the class, sit down and be ready to begin. Check the time.
- 4 minutes after the lesson was supposed to have started make your first set of ticks in the grid **even if the lesson has not started properly**. Check the time and work out when you should make your next set of observations.

During the lesson;

- Continue in this way until you have made 3 ticks in each of the 13 rows on your grid. **You should have 39 ticks in total. It is essential that you make observations every 4 minutes because otherwise we will not have a complete record of the lesson**

Now you will practice filling in the classroom observation sheet

This section to be written once we have decided to use the DVD or the lesson simulation or both

Leaving the school and afterwards

After you have completed each lesson observation you will put the two front pages and two observation sheets into the envelope provided.

You will say goodbye to the head teacher and thank him/her for their co-operation.

You will put the envelope in a safe place, making sure that it is kept in good condition and that none of the pages are creased.

Check that all the sheets are in pristine condition. If a sheet is creased or dirty, use one of the spare sheets you have been provided and copy out the details onto the new sheet

Checklist; Before you Leave the school

Check;

1. You have four completed classroom observation sheets, each with 30 ticks or slightly less if the lesson was less than 40 minutes
2. You have attached the front pages to each of the classroom observation sheets.
3. All the sheets are in pristine condition
4. After you are satisfied that you have got all the information, please seal the envelope provided.

When you have visited all schools, please take all the completed sheets to the State Quality leader. He or she will check the sheets with you to ensure that you have a complete return and that all sheets can be scanned satisfactorily.

Your mission will then be finished. Well done

Appendix A; List of Schools

Appendix B; the Instruments

Annex 7 Terms of Reference for National Consultant

Terms of Reference for Akinwehinmi Gbenga

Consultancy of 10 working days; 24 March 2009 to 5 April 2009

Context

A survey of teaching and learning in the five states covered by the ESSPIN project will take place in May/June 2009. The survey will use a quantitative approach to recording classroom behaviour which will involve entering data from observation sheets into SPSS for subsequent analysis.

Purpose of Consultancy

The purposes of the consultancy are;

- To undertake a feasibility to determine the most appropriate technology for entering the data. The technology selected must be capable of entering the data in an accurate manner from the observation sheets
- To prepare for the survey by drawing a random sample of primary and junior middle schools from the five states
- To prepare for the survey by coding SPSS to ensure that data can be analysed correctly

Outputs of the Consultancy

- **A brief feasibility report outlining the most appropriate technology to employ. The report will consider three options; manual data entry, OCR and OMR. The report should describe the technology chosen; how it will operate; the need for any of any software development and, if so, what it entails; the procedures to be used for data entry; and approximate cost. The description of procedures should say whether the option chosen involves pre-programming coding of the ID sheets to be used by field workers.**
- **A list of 380 schools selected as a representative, random sample using the SPSS facility**
- **Coding for data entry.**

Tasks

- Investigate whether there are any suitable scanning facilities that can be hired. The scanning facility must have the capacity to be used in conjunction with Excel or SPSS
- Investigate the possibility of contracting out the scanning to a private company using software developed for the data entry. Discussions will be held with Dr Tayo Sanni with a view to determining the suitability of using a simple optical mark reader, tailor made software, including pre-programming for coding of the observation sheets. (A description of how coding would be done manually is attached)
- Obtain a complete list of primary and junior middle schools from the EMIS of the following States; Jigawa, Kaduna, Kano, Kwara and Lagos. Merge the lists, format as

appropriate for SPSS focusing on the columns for school code and LGEA; draw a sample of 380 schools to be used in the survey, treating the whole list as a single population.

- Design a code for data entry into SPSS. Draft copies of the two observation sheets to be used are attached.

A complete report will be produced by April 6 2009. It should be sent to;

john.kay@esspin.org

and

tdavison45@hotmail.com

Annex 8 Survey Timetable

No.	Activity	Start Date	Complete By	Responsible
1.	Agree design of classroom observation instrument and prepare draft manuals for survey managers, trainer manual and consultant manual;	11 March	26 March	Survey managers and international consultant
2	Drawing the sample and coding of SPSS in preparation for the pilot.	23 March	5April	ESSPIN consultant
3	Send list of all schools in State and sample schools in State to all State survey managers		5 April	ESSPIN consultant
4	Conduct feasibility study to assess the most appropriate technology for data entry	23 March	5 April	ESSPIN consultant
5	Contract consultants to be employed in the pilot	1 April	18 April	Quality team
6	Assess results of feasibility study; set up appropriate technical option for data entry and analysis	16 April	20 April	International consultant
7	Advance planning: Plan the overall schedule and distribution of responsibilities for the different activities using this table. Review instrument and manuals. Plan training	21 April	22 April	Quality team International consultant
8	Training of pilot consultants in Kaduna; pilot trainer and consultants manuals	23 April	24 April	Quality team International consultant

No.	Activity	Start Date	Complete By	Responsible
9	Trial the instrument through classroom observation in schools	27 April	28 April	Quality team International consultant
10	Review experience of pilot; amend instrument or manuals accordingly	29 April		Quality team International consultant
11	Request approvals from the relevant authorities for main survey	1 May	15 May	Quality team
12	Printing of instruments and manuals: Prepare all instruments and materials for printing and take the necessary actions to have them printed.	1 May	15 May	Quality team
13	Purchase of materials: Purchase envelopes, black ink pens.	1 May	15 May	Quality team
14	Organization of logistics of survey: Make all necessary preparations for the actual survey, including: <ul style="list-style-type: none"> • the appointment and assignment of consultants • organization of transport for the survey; • booking of venues for training and all other activities; • booking of accommodation if required; • allocation of computers for data entry. 	1 May	15 May	Quality team
13	Training of consultants in each state; 2 quality team leaders per state. Staggered training. 2 days in each State	16 May	30 May	Quality team
14	Data collection: Conduct the actual survey. This involves fulfilling all the steps planned, organized and taught to the consultants. Managers must be available at all times during the data collection period to resolve any problems that may come up.	1 June or possibly slightly earlier in some states	7 July	Consultants

No.	Activity	Start Date	Complete By	Responsible
15	Return of instruments and materials: Ensure that all instruments and materials are returned to the State managers. Follow up on any outstanding observation or coding sheets	June	7 July	Consultants Quality team to monitor
16	Check completed observation and coding sheets.		7 July	Quality team
17	Data entry: method to be determined. Probably scanning; possibly using OMR	8 July	1 August	Probably contracted out
18	Data analysis workshop and preparation of baseline report.	First week of August	10 August	Quality team International consultant

Annex 9 Suggested Terms of Reference for Next Visit 14 April-30 April 2009

Context

This follows up the first visit made by the consultant which laid the preparations for the teaching and learning survey by designing an observation instrument with the quality team; prepared three manuals; and prepared the ground for examining technical options for data entry and analysis.

Purpose of the Visit

To finalise preparations for the main teaching and learning survey by conducting a pilot with the quality team and setting up the most appropriate technical option or data entry and analysis

Outputs of the Consultancy

- **A pilot study** which has trialled all elements of the main teaching and learning survey, and amended manuals and instruments in the light of its findings
- **A feasible technical solution** to data entry and analysis which eliminates the errors of data entry
- **Manuals and observation instrument amended as appropriate**
- **Plan for main survey and report revised as required.**

Activities

- Review the feasibility study on data entry.. Contact the most appropriate source; define precisely the procedures to be employed; draw up draft contract for consideration of ESSPIN
- Review the procedures by which the sample was drawn
- Conduct two day planning workshop with quality team in preparation for pilot training, the pilot, and the main survey.
- Conduct pilot training with the quality team
- Visit schools with the pilot observers and the quality team to observe pilot process
- Review the results of the pilot with the quality team and pilot observers; amend instrument and manuals accordingly

A draft report will be presented before departure. A final report will be sent within one week of departure.