

## A CLASSROOM-BASED APPROACH TO IMPROVED TEACHING/LEARNING

### OUTLINE FOR A SHORT METHODS COURSE

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The quality of classroom teaching/learning depends upon the effective functioning of many components of the education system. Efforts to improve program quality often fail because changes are not comprehensive enough or not well-focused on achieving specific program goals. The section below suggests a core plan for the first stages in program improvement, with the teacher as the centerpiece in the effort.

The approach described here is classroom-based and performance-oriented. It is also a bottom-up approach.<sup>i</sup> In such an approach, efforts are directed initially at changing only those elements which contribute directly to observable/measurable improvements in student learning. The approach is incremental in that it assumes change can be absorbed more easily in small doses and that improvement is a continuous process that is never complete. As changes are made in teacher training, for example, other parts of the program are brought into agreement to support and sustain them.

There are many ways such an approach may be taken. One way is to start by instituting short inservice/preservice "effective teaching practices" courses attended by all those who have a part to play in classroom instruction, e.g. teachers, principals and supervisors. The effective practices are reinforced with lesson materials prepared for use in the classroom. These materials include diagnostic tests so teachers know not only if students are learning the required material, but how well they themselves are teaching it. At first, the methods and materials are built around existing curriculum and subject lessons to achieve results quickly. Later these components are assessed and revised in light of information about their appropriateness in classroom learning. The short course training package of methods, materials and assessment, tried out in limited geographical areas and tested independently to ensure clear results in classroom learning, constitutes the first step of the improvement program.

Using the classroom-based approach has several advantages: it produces results quickly, it provides an information base for later comprehensive improvements in training, curriculum, instructional materials, etc.; it builds the capacities to train personnel and develop materials more effectively. It is initially a limited approach and is therefore less costly and easier to implement. It does not challenge the whole of existing components in education systems in the beginning, but rather works immediately to improve only those parts which are likely to make a clear contribution to student learning. Using the teacher as a key, each improvement is organized directly to support better instruction for the student.

Below are suggestions about how elements in the first phase of a classroom-based approach might be organized.<sup>ii</sup> The three components affected in this stage are training, teacher supports and assessment.

Step One: The first step is to decide upon a set of teaching methods that can provide the basis for training modules/courses of short duration. These practices can be identified in one of three ways, by:

- o conducting a small scale research of effective teaching practices in the country;
- o adapting methods which have proven effective in countries with similar cultures and education systems; or
- o adopting methods which empowered educators believe will lead to "official" learning outcomes (and testing them in limited experiments to see if this is in fact is true).

In the course of implementing the first phase of the improvement program, the method is tested to see whether a sample of teachers trained in its use can produce the results expected in student learning. An unsuitable model delays program improvements and, therefore, the more evidence that a method works well in a particular setting, the more likely it can be easily replicated.

Step Two: An experimental methods/practical course is prepared with the assistance of those who will train teachers. The objective of the course is to improve the teacher's understanding of what contributes to learning as well as to ensure that expected learning outcomes are achieved. The course would include:

- o practice in the new methods;
- o explicit lesson plans (such as annotated textbook lessons for the use of teachers) describing how the methods are used in each subject lesson;
- o assessment tests build into the lesson materials so teachers can evaluate how well they and their students are doing.

The materials are designed for self-learning to make them less dependent on trainer quality. Each teacher carries the materials back to the classroom to use in daily teaching. Finally, similar teaching materials are prepared for trainers to assist them in implementing the course.

Practice in the methods: The object of the practice is for teachers to build a repertory of instructional behaviors that are known to contribute to learning in the classroom. First, they practice a generic set of effective behaviors and then later learn how to adapt them in practice to the requirements of the teaching context, the subject matter, and the varying capacities of students. Teachers also learn that some practices work better in conjunction with others and some are more powerful if they are sequenced in logical order. Learning about the implications of teaching practices comes through teacher discussions about their experiences in the classroom.

The following are suggested as topics teachers might discuss when reviewing their experiences with effective teaching methods.<sup>iii</sup>

- o The implications of various effective teaching practices

- their appropriateness in different contexts (Topics might include language use, materials and subject levels, pacing, monitoring, feedback, testing, discipline questioning, and learning sequences)
- their implications for furthering student learning, especially with regard to the official performance based objectives of the primary system as well as the implicit cultural understandings about what are the desirable characteristics of an educated person, of ways of learning and other social values

- o The usefulness of a variety of learning tasks

- their appropriateness for various subject matters and their implications for learning. (Expanding on Bloom's typology by showing the kinds of tasks that lead to the development of different orders of thinking skill might be one way to approach this topic)

- o The best uses of instructional time

- why time is important, how to schedule time effectively, how to keep children engaged in learning tasks

- o Teacher modelling behavior (for desirable values and social behaviors)

- o Factors which affect student learning

- out-of-school and in-school
- amenable to teacher manipulation or not (and how)
- relative importance in producing learning outcomes

- o Learning contexts and their special requirements

Discussion should incorporate student experiences and real-life examples of these practical aspects of teaching. Eventually the student-teachers will practice application of the principles when using the course materials below.

Course materials and assessment instruments: Teacher guides are provided to teacher trainees to reinforce the use of effective methods. The best guides are annotated student texts since they are easily accessible, relate directly to the material taught and ensure good results if followed faithfully. In annotated guides, instructions (lesson plans) for the teacher appear in the margins surrounding a reduced size copy of the child's text.

These instructions might include the following sequence of steps:

- o Objective of the lesson: Today, the students will learn... (specific learning objective).

- o Review: To learn this objective/skill the child needs a short review of ... (specified prerequisite knowledge--pages where this knowledge exists, or specific problems).
- o Presentation of material: Present the new material as follows: ...(specified steps). Here are some ....(specific problems or questions to ask students to see if they are comprehending).
- o Guided practice: Ask the children to do these... (specified problems, tasks) giving as much individual and group feedback as possible after each. When most children can do the new material fairly well, then go on to:
- o Independent practice: Assign the following ... (specified set of problems, tasks)
- o Homework: For further practice assign...(specified problems).
- o Diagnostic tests: Ask children to solve ... (specified set of problems).
- o Relearning materials: If children have had difficulty with problems ... (specified problems) then have them do ... (a specified set of problems accompanied by teacher clarification).
- o Enrichment materials: While other students are engaged in relearning, have students who successfully passed the tests do ... (a specified set of problems with more difficult applications) on their own.

The lesson is specified step by step to reassure the hesitant teacher; problems and tasks are described in detail along with correct answers when these are appropriate; and tests are provided to assess student comprehension. The confident teacher can elaborate his or her own versions of the lesson. The purpose of the guides is to provide a minimum standard of performance for teachers who are weak in capabilities and content knowledge. The guides are most useful in systems where teachers tend to be under-qualified and professional training is poor. If the lesson plans are carried out conscientiously, they will lead, under normal circumstances, to the expected learning outcomes. In addition to encouraging sustained use of the effective methods, the lesson plans allow for experimentation with learning skills (such as analytical and problem-solving skills) that are thought to be deficient in the existing program.

Implementing the course: The duration of the course and the way material is presented to teachers can vary considerably, since the burden of sustaining the method in the classroom rests with the "annotated lesson plans." When a minimum amount of time (perhaps two weeks or less) is available for the course, the teacher need only become familiar with and practice using the lesson plans. When a longer period of time is available, more background material can be presented using the discussion topics above. Below are some suggestions about how to present the course. All would be enriched by observing classroom examples or video demonstrations.

- o Short duration, trainer-directed course: topics are presented in written form and explained by the

trainer, who then asks questions of the students to ensure comprehension; annotated lesson plans are also explained and demonstrated in the training classroom and then practiced by students with one another, or in local schools.

- o Medium duration, trainer and student-interactive course: topics are discussed before presentation of the written materials to elicit the ideas of the students, and then the written materials are expanded using the observations of the students. Methods are practiced as above with modifications suggested by the teachers from their own experiences.
- o Long duration, student-directed course: the trainer encourages students to hold preliminary discussions on the topics and then to go out and research their own versions of the topics, using documents (on education goals and curricular objectives) and observations in the classroom as the basis for writing their own reference documents. In this case the written materials for the course might include the documents and research literature that would serve as the basis for the student reports. Methods would be practiced as above with annotated lessons developed by the students themselves.

The methods course can constitute an add-on or replacement for a small portion of existing training programs without major revision in established courses. It can be adapted to the requirements of refresher, in-service and/or pre-service training for teachers, managers and supervisors of instruction.

The course should be given to personnel in clusters of interacting schools so that when these practitioners return to their jobs, they can mutually support each other in use of the new system.<sup>iv</sup> Supervisors who cover a larger circle of schools could serve in a second round of training as assistant trainers or resource persons. Participants leave the course with their course text, which becomes a reference manual for what affects classroom learning as well as a practical annotated text of how to conduct courses currently taught in their schools. When principals or supervisors visit a class, they have the same manual for reference to assess how well a teacher is doing.

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i. In a top-down approach, reorganization occurs at the "top" or center of an organizational structure in the expectation that the effects will trickle down to the classroom. The bottom-up approach starts by identifying the changes needed in the classroom and moves up the institutional structure modifying only what is necessary to make an impact on classroom learning.

ii. The details are suggested from BRIDGES "effective classroom practices" findings and from literature on instructional strategies and the allocation of learning resources (Montero-Sieburth 1989 for BRIDGES). The approach is generic in the sense that it suggests an outline and leaves the details to be filled in by those who use it.

iii. These topics cover the areas which appeared important in the BRIDGES "effective classroom practices" studies.

iv. One promising program in Asia introduces distance in-service training into the cluster school setting so that all or most of the teachers in one area experience the training at the same time. This approach controls the quality of in-service training while bringing training closer to home, giving teachers a chance for more interaction, and also giving supervisors and managers opportunities for training that supports improvements in the classrooms they serve. The program helps to focus all personnel on the same major goals of educational quality. (BRIDGES FORUM Nov.9, 1989)