

Cheryl A. Samuels  
Control Data Corporation

ABSTRACT

The demands for technology by developing countries can be more effectively met when those delivering the technology consider phenomena affecting current practices, recognize productive practices, and integrate the new technology with productive practices that are already in place. This paper describes some phenomena affecting educational planning in developing countries and considers ways of integrating systematic planning procedures in these environments.

Need for Dissemination

With a centralized Ministry of Education often rated as the nation's largest employer, education is a mammoth enterprise in many developing countries. Education is viewed as a vehicle for change and emphasis is placed on educational planning as a process for managing change. Today, every Ministry of Education comes equipped with a planning unit charged to devise and implement educational programs for increasing numbers of the population. However, reports a recent Education Sector Policy Paper of the World Bank,<sup>1</sup> educational planning has not become the management tool it was expected to be.

Among the shortcomings observed in current educational planning in developing countries are that:

1. Educational planning has been confined to setting goals and insufficient attention has been paid to the means of achieving the goals.
2. Although the number of educational planners is steadily increasing, many countries suffer from a shortage of qualified personnel.
3. Educational planning has usually been done by the central government; as a result, planning has often been country wide with too little attention given to specific programs aimed to benefit well-defined target groups or geographical areas.<sup>2</sup>

These observations call attention to certain broader, situational conditions. The first of these is that the centralized Ministry of Education receives from the government in power, a charter bound by the particular ideologies of that government. Except in those rare situations when where politicians allow educators to determine educational needs, many education planning units begin their work by defining goals from pre-determined educational needs set in national policy. A second general condition is that members of the educational planning unit, themselves few in number, must often delegate the responsibility for program development to other Ministry of Education employees, such as faculty of teacher training colleges or of university departments. The planning unit is usually careful to retain program administration functions.

Those who actually continue the planning process through program implementation are those then who have little, if any, voice in the identification of educational needs, priority of

goals, or allocation of resources. It is to their credit therefore that despite such administrative limitations, more and more educational programs are being implemented, larger quantities of materials are being produced, and higher percentages of the population are receiving formal and non-formal education. Nonetheless, because so many of these projects are plagued with inefficiencies and end products are often of low to marginal quality, an effort to increase dissemination and use of systematic planning procedures is needed.

Potential Audience

This effort may achieve greatest impact when made among persons traditionally charged with program development. As described above, although these persons are likely to be employees of the Ministry of Education, they are less likely to be members of its planning unit. It should be recognized that many of these persons will be experienced in some planning activities and that there may even be a few who have had formal training in systematic planning procedures. The idea would be to build upon their experiences, reinforce present skills, and introduce new ones.

General Systematic Planning Procedures

Models for systematic planning in education are bountiful in the research literature. Drawing upon general systems theory, learning theory, and principles from the fields of communication and evaluation, these models are variously termed: instructional systems design, instructional design, or sometimes a more generic term, educational technology. Whatever the terminology, these models specify procedures and activities for changing some existing situation into a preferred one.

A recent analysis<sup>3</sup> of some of the most generalizable and widely disseminated of these models, showed that there are five procedures most commonly prescribed for the planning process. These five procedures are:

1. Identification of Goals and Specification of Objectives--the determination of broad expectations for a particular instructional situation and the formulation of statements indicating the performance expected of the learner as a result of instruction.

2. Analysis of Objectives--the identifica-

\* ML + MBO (or PPBES, or whatever other accountability title states' use) are in place in many states & in process of implementation in others

tion of types of learning in objectives and the classification of objectives according to a category system.

3. Organization of Teaching/Learning Plan-- identification and arrangement of teacher/learner interaction to achieve behavior specified in the objectives.

4. Provision for Learner Assessment--the formulation of components which test the learner's achievement of the behavior specified in the objective(s).

5. Evaluation of Instructional Plan--the determining of the effectiveness of the instructional plan.

Those of us who have applied these procedures and their related activities in the "real world" have learned very soon, and often very painfully, that the amounts of time and money allocated to a project greatly affect how thoroughly, or whether at all, these procedures and their underlying activities can be performed.

#### Time and Money in the Societal Context

The dissemination of information in developing countries on how money and time relate to systematic planning procedures should be done in the context of how these "commodities" are regarded in the particular countries. In some countries, the scarcity of money is of national concern. Here the application of budgeting and forecasting techniques with constant reminders for guarding against waste may be well received. In countries where the supply, or lack, of money is seldom openly discussed, it may be appropriate to limit discussion of these techniques to senior members of a project team.

Similarly, in countries where time is regarded as more cyclical than linear, it is inappropriate to espouse the merits of milestone charts that display tasks to be accomplished by week 1, week 3, and onwards to week n; or to advocate a strict use of timecards for tracking project participants. In such environments, milestones must be more ceremoniously marked than with a check on a calendar or a shaded triangle on ruled paper. Instead, they must be translated into the time when the project will be discussed on the radio, the time when an exhibition will be held, or best of all, the time when the Minister of Education will visit the project site. Project members have a real interest in showing off the project at these times and they will invest many more hours in the project than can be recorded on the conventional timecard.

#### Requiring Critical Transition to Learner Centered Planning

An observation reported above is that most educational planning in developing countries stops at setting educational goals. These goals do become transformed in tangible ways as is evidenced by the many programs and products that are said to be constructed off them. Unfortunately, many goals are translated only in terms of aims for the teacher or project participant--

what has to be done to get the given product to the learner--and almost never in terms of objectives--what the learner will be able to do as a result of interaction with the product.

Because desirable learner behavior is at the focus of systematic educational planning, it is imperative that the educators first be encouraged, exhorted to make a conceptual transition from the traditional, teacher centered curriculum to a learner centered curriculum. This is a critical transition to require not only of educators in developing countries, but also of all educators being encouraged to apply systematic planning techniques. But, the transition is not an impossible one when these same educators can be reminded of their yearnings for a reduction in waste of potential among their students, efficient ways to monitor students' progress, and reliable methods for guiding students towards mastery of knowledge and skills.

→ Concepts of mastery learning and management by objectives are likely to be very attractive to educators in developing countries. Once these educators have made the mental transition to learner centered educational planning, then they can be more receptive to procedures for specifying and analyzing objectives and then for organizing a teaching/learning plan, providing for learner assessment, and evaluation of the instructional plan based on those objectives. \*

#### Recognizing Culturally Embedded Teaching/Learning Strategies

In disseminating information to educators in developing countries on activities for organizing a teaching/learning plan, special care should be taken not to undermine those traditional teaching/learning practices that are integral to the culture of the particular country. For example, although the lecture is an autocratic teaching strategy, allowing total control by the teacher, it is often used as a vehicle for motivating students who are bound by no law to attend school. Many educators in developing countries are particularly skilled in analyzing characteristics of learners and in eliciting and directing learners' interest in the instruction. They instill hope where there is none, and they encourage the virtues of self-discipline and perseverance. These skills, along with those for arranging content and creating means of communicating it, are highly applicable to the organization of a teaching/learning plan.

#### Viewing the Larger Examination System

Procedures for the assessment of learners and for the evaluation of instructional programs have traditionally been of high interest in developing countries. This may be so because of the rigid system of examinations that education in these countries is tied to. National examinations, such as the Secondary Schools' Entry or the Primary School Certificate examinations, are given such prominence that often a country's entire academic curriculum may be based upon them. Dissemination of procedures for evaluation in systematic planning should be done in the context of the larger examination system, for often

I interpret this to mean that ML + MBO are the requirements to implement an international curriculum