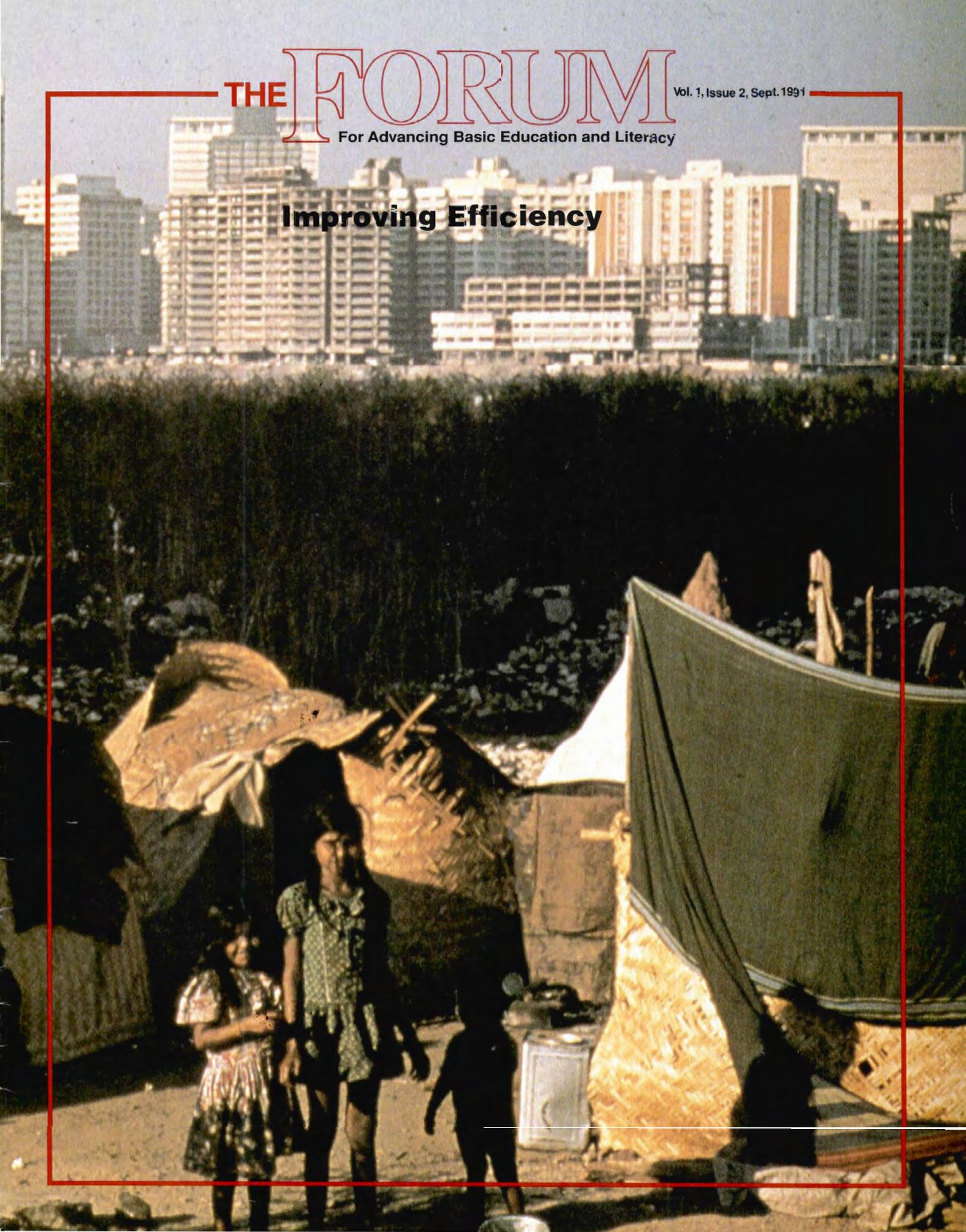


THE FORUM

For Advancing Basic Education and Literacy

Vol. 1, Issue 2, Sept. 1991

Improving Efficiency



To Our Readers

Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back.

— John Maynard Keynes

The General Theory of Employment Interest and Money



Jeffrey Peirce

Are these the children of practical men and women? What is the efficiency of an industrial model of development when it leaves people impoverished and the earth around them polluted? What does this mean as we discuss improving the efficiency of education systems? Can our educational systems be improved by using defunct economic models?

The words quoted above, written in 1936 by John Maynard Keynes, describe the way that some people think about economics as they write about educational efficiency. The *American Heritage Dictionary of the English Language* (1981 edition) defines efficiency as: "The ratio of the effective or useful output to the total input in any system; especially, the ratio of the energy delivered by a machine to the energy supplied for its operation." An efficient system is one that exhibits a high ratio of output to input.

The authors—economists and non-economists—who have written the articles on efficiency presented in this issue of *The FORUM* express concern about the limits and dangers of transposing the efficiency concept from a technical setting to a social or behavioural one. They suggest a need for other, broader definitions of efficiency, using economic and non-economic terms.

The root of the word "efficiency" is from the Latin *facere*, which simply means to do. Another word derived from *facere*

is *vivify*, meaning to give or bring life to; to make more lively, intense, or striking, to enliven. Examples of programs implemented at the national and local levels in the issue describe the doing and bringing of life to education systems.

The first article by Easton, Holmes, Williams, and duPlessis describes a model to guide planners in determining the efficiency of a system. Because no model is generalizable across all others, they stress the importance of using a collaborative approach in developing context-specific production-function models. Douglas Windham's article presents a straightforward way to plan for the collection of diverse data sets needed to evaluate a system for its ability to assure that classrooms are efficient in providing learning in an equitable manner. Once the indicator data is collected, it must be used effectively; the geographic information system described by Thomas Cassidy helps in visualizing large scale, but often elusive social trends.

The privatization of education is increasingly discussed as a finance option, particularly in economies with high foreign debts. Juan Carlos Tedesco gives us mixed results from Latin America, depending on the context within which privatization is implemented.

The examples from Latin America and Africa indicate innovative approaches to increasing school efficiency. The New School project in Colombia, BANFES in Lesotho, and MASMOVE in South Africa all have several points in common. The messages from these examples are:

- **Know the context.** The education models adapt to, and have been adapted by the people they serve.
- **Improve a system from within.** The energy for increasing educational efficiency come from the people in the education system at the local level. For example, curriculum is developed by teachers and students.
- **Collaborate.** Educational administrators, i.e. planners, researchers, teachers, and students work together in a highly participatory process.
- **Use resources sparingly.** They have been developed with minimum external inputs; innovative methods are used to insure that scarce local resources are allocated sufficiently by sharing and learning in small groups.

We hope you find these examples interesting and informative. The response to the first issue has been strong and encouraging. Several people have sent articles and photographs and many others have offered ideas and suggestions. Please continue to comment on the contents of *The FORUM* magazine and let us know about the new and innovative educational projects from your region.

—The Editor

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Efficiency and the Collaborative Design of Educational Indicator Systems

by Peter Easton, Dwight Holmes, Howard Williams, and Joy duPlessis

Efficiency is technically defined as the ratio of outputs to inputs in a system. Data used as indicators to describe particular characteristics of an educational system may help in determining the efficiency of its operations. From a "rational" point of view, the underlying concern of efficiency analysis is to assess the extent and manner that an educational system or some particular part of it, is accomplishing its goals.

Three Fundamental Issues

Injunctions to maximize efficiency by increasing the ratio of outputs or outcomes to inputs frequently miss three fundamental issues. First, technically speaking, the concept of efficiency is only meaningful when the outputs or outcomes of a system are correctly specified and measured. Desired educational outputs and outcomes are not simple, and they may vary significantly from one place to another. They frequently involve affective as well as cognitive results, group as well as individual effects, and distributional as well as summational considerations.

Second, efficiency is a ratio, not an absolute magnitude. Neoclassical economics generally assumes that efficient methods that are

applicable at one resource level are generalizable across others as well. This is not always true; and, when not, programs based on this reasoning are in serious trouble. Also, an efficiency criterion can be substantively ambiguous, particularly if a short-term perspective is adopted. For example, cutting inputs by one-half might "mathematically" improve efficiency in short-run, yet have ruinous longer term effects.

Third, educational systems need to be efficient both in generating and in expending resources, and these two objectives are not always compatible. A system which produces less outputs per unit of input but manages to generate or elicit more input, such as community or private financing, may be better adapted to achieving national objectives than a more "efficient" one.

A Prototype Model

Indicator systems may and should vary significantly by locality for a number of reasons: (1) efficiency has little meaning until it is measured against the specified objectives which depend on the local perspectives and values; (2) data availability and quality may vary enormously; and (3) the utility of an indicator system depends entirely on

one's ability to interpret the data, and most indicator systems therefore require a complementary set of qualitative insights and studies that are normally highly region-specific.

The prototype model illustrated to the right was developed to stimulate discussions of educational indicator systems in a collaborative and interactive mode. The underlying conceptual model was based on work done in Haiti and consists of three tiers: descriptive indicators, efficiency indicators, and equity indicators. At the descriptive level the characteristics are organized into fifteen domains, beginning with context and proceeding through inputs, processes, outputs, and outcomes of education.

The second tier of the model (not pictured) concerns efficiency indicators. Strictly speaking, efficiency is a ratio of outputs to inputs. An efficiency measure is therefore generally a secondary indicator which is based on two or more primary indicators.

Each of the domains in the model may have its own internal efficiency measures, involving its own particular inputs and outputs. For example, the input in the school management domain may be dollars, and the output a certain number of services provided to



Within a given context efficiency can be determined by a combination of inputs, processes, outputs, and outcomes. This prototype model consists of three tiers of indicators: descriptive indicators, efficiency indicators, and equity indicators. Fifteen domains are shown within the production

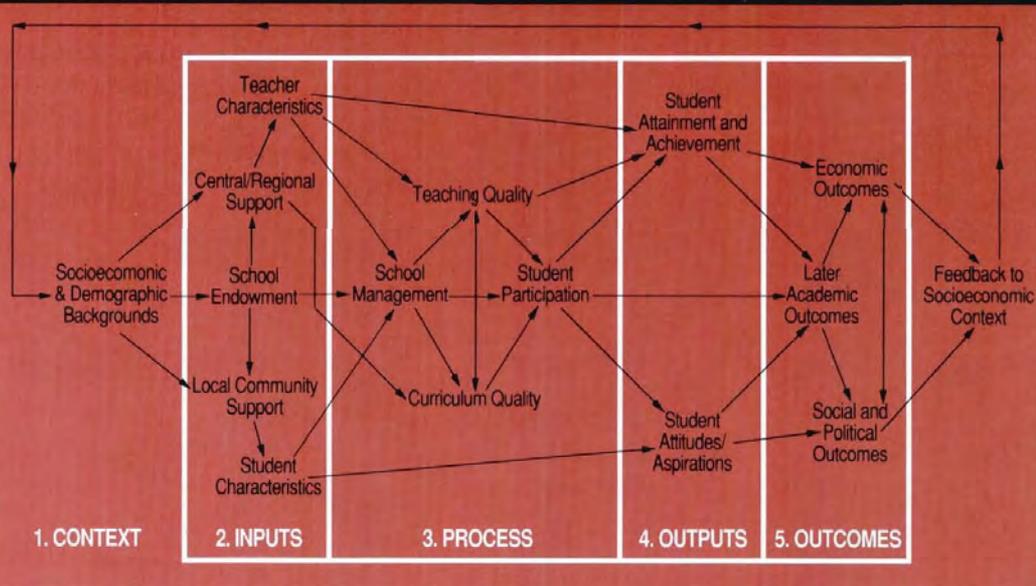
teachers and students by school administration. These two measures could then be combined into a "local" efficiency indicator focusing on the performance of school management.

Some of the descriptive indicators are implicit efficiency measures. Any type of school completion or graduation rate, for example, is of this nature, since the "rate" compares those who succeeded (output) to all those who took part (input). In addition, various kinds of composite efficiency indicators can be tracked. For the model pictured, three were proposed: (1) enrollment ratios; (2) resource sufficiency ratios like textbooks per student or non-salary expenditures per student; and (3) resource cost per graduate, represented by ratios as simple as graduates per teacher-year.

The third tier concerns equity indicators, the establishment of which involves *disaggregating* data along axes of importance to the country in question (e.g. by region or gender).

An indicator system may be developed at any level from the individual school or project through regions to the country as

An Educational System Model



a whole. However, the quality and relevance of data is better when these issues are faced at the local level. ❖

For a complete copy of the monograph upon which this article is based, please write IEES, Learning Systems Institute, Florida State University, Tallahassee, FL 32306-4041.

process for education, which takes place within a context and proceeds through the four main production-function parts: inputs, processes, outputs, and outcomes. This model was designed by members of the Learning Systems Institute at Florida State University. Based largely on work done in Haiti, it is meant to stimulate country-specific collaborative design discussions.



Indicators of Educational Efficiency

by Douglas M. Windham

The only way to evaluate a system's efficiency is by establishing "objectively verifiable indicators," or benchmarks. The purpose of efficiency analysis is to promote long-term improvements at the school and classroom level. The ultimate goal is to assure that classrooms are efficient in providing learning in an equitable manner.

Education systems have three options when faced with increasing social and economic demand. These are: (1) to obtain new levels and sources of funds; (2) to accept poorer quality and/or reduced access; or (3) to

increase the efficiency with which resources are used. The first option will not be available in most countries, while the second is explicitly unacceptable (but implicitly utilized by an increasing number of nations

where the demand for education has expanded beyond a level where quality can be maintained or equal access promoted).

It is only by using resources (both financial and human) more efficiently that educa-

Seven Indicators of Efficiency: Benchmark Data for Three Phases of Development

Efficiency Indicators	Phase I	Phase II (Phase I data plus following)	Phase III (Phases I and II data plus following)
1. Student Characteristics	<ul style="list-style-type: none"> Enrollment by school Gender ratios Progression rates (aggregate only) 	<ul style="list-style-type: none"> Gender data cross-tabulated with size-of-place and region Ethnic distribution Detail by level and type of program Separate repetition and attrition rates Age distribution 	<ul style="list-style-type: none"> Subject or course specialization Attitudinal and behavioral measures Time use
2. Teacher and Administrator Characteristics	<ul style="list-style-type: none"> Distribution by qualifications Student-teacher ratios 	<ul style="list-style-type: none"> Qualifications distribution including specializations Age and experience Distribution by location Students per administrator Turnover rates and incidence Absenteeism 	<ul style="list-style-type: none"> Time use Training needs Interaction with community Job satisfaction
3. Curriculum and Educational Materials	<ul style="list-style-type: none"> Textbook availability Regional and size-of-place distribution 	<ul style="list-style-type: none"> Textbook availability and use Availability of support materials Status of curriculum development and dissemination 	<ul style="list-style-type: none"> Knowledge of curriculum by administrators and teachers Users' evaluations of curriculum and materials Evaluation of alternative instructional technologies
4. Facilities/ Equipment	<ul style="list-style-type: none"> Number of "complete" schools Students per school Students per class 	<ul style="list-style-type: none"> Facilities use by level and type of program Equipment availability Distribution of special use facilities 	<ul style="list-style-type: none"> Equipment use Needs analysis Maintenance and replacement projections
5. Student Achievement	<ul style="list-style-type: none"> National examination pass rates Promotion rates 	<ul style="list-style-type: none"> Examination scores and pass rates cross-tabulated with student and school characteristics Attainment distributions by student and school characteristics Promotion rates by student and school characteristics 	<ul style="list-style-type: none"> Determinants of educational outputs Determinants of inequalities Analysis of high- and low-achieving schools
6. Education and Training Outcomes	<ul style="list-style-type: none"> No data 	<ul style="list-style-type: none"> Earnings from public employment Employment (aggregate) by level of education Tracer studies of secondary school and higher education graduates 	<ul style="list-style-type: none"> Net present value estimates by level and type of education Studies of graduate attitudes and behaviors Job search rates by level and type of graduate
7. Costs	<ul style="list-style-type: none"> Teacher salaries by qualifications Aggregate budget data Cost per student by level of education 	<ul style="list-style-type: none"> Ingredients-approach cost calculated for each level and type of program Unit and cycle cost for all programs 	<ul style="list-style-type: none"> Detailed cost analyses of major programs and alternative technologies Cost projections by level and type of education

tional systems can provide greater opportunities for learning.

The only way to evaluate a system's efficiency is by establishing "objectively verifiable indicators," or benchmarks. Objectively verifiable indicators are quantitative measures that indicate the nature of change, its direction, and its extent. A simple example of benchmark data is female enrollment statistics. Over time or from place to place one can compare the change in enrollments in terms of both their direction and size. A slightly more sophisticated measure is the percentage of female enrollment, which will indicate the change in female enrollments relative to changes in male enrollments.

Of course, no system of benchmarks can be meaningful in evaluation unless the original assessment created baseline data for comparison purposes. And the comparison of benchmarks with baseline data is only the beginning, not the end of evaluation. This is especially true in efficiency analysis.

Efficiency evaluation depends on multiple indicators, on measures of both costs and effects, and will always require a subjective and contextual interpretation of the data before policy conclusions can be reached. It is critical that the efficiency indicators not be used to create a mechanistic evaluative process wherein the success or failure of an educational institution is measured by a single rate or ratio or even by multiple indicators. The indicators and the analysis are not the same phenomenon; the link between the two is the decision makers' conceptual understanding of the educational process and the values they apply to the data in reaching policy conclusions.

The periodic review and modification of efficiency indicators should be an inherent part of the policy process. More complex interaction statistics can be introduced in later phases. The actual progress of a system will depend on where it begins (in terms of data quality and decision maker capacities), the resources available, and the importance decision makers assign to efficiency.

Three Phase System

While substantial variation will occur from nation to nation, there are three phases of benchmark data (see chart on opposite page). These phases are not fixed in their detail nor would they necessarily be distinct in their implementation. There are seven main indicator groups used in efficiency analysis. They are:

- Student characteristics
- Teacher and administrator characteristics
- Curriculum and educational materials
- Facilities and equipment
- Student achievement
- Education and training outcomes
- Costs

The development of an efficiency-based educational management information system (EMIS) should parallel the development of the three phases of benchmark data. The EMIS, to be efficient itself, must be able to provide decision makers with the data, information, and analysis that is required during each stage of decision making.

In the progression from Phase I to Phase III the data will increase in coverage, accuracy, and interpretability (and, if the EMIS is successful, in timeliness). Data will be easier to interpret because of a greater capacity to assimilate it through comparison and contrast of data sets. For example, gender ratios can be combined with teacher characteristics by region and across time. This data can then provide a basis for discussions of coincidental effects and possible causality (e.g., whether more women teachers encourage greater attendance by and retention of female students).

The goal of the data benchmark system is to emphasize a balanced development throughout the seven data categories so that comparability in detail, coverage, and accuracy make it easier to interpret the total data system.



Traditional classroom structures are not always the most efficient. The children at the New School (see p.8) work in small groups of two or three, sharing self-instruction study guides that are affordable and last for years.

Benchmark data will depend most heavily on the annual educational census. Special data collection will coincide with the mid-term and inter-term national planning cycles. In addition to these major activities, supplementary detail can be obtained from special studies as part of project planning and evaluation activities.

The status of EMIS development will be the ultimate determinant of decision maker training and efficiency-based benchmarks, neither of which will be any more successful than the EMIS system permits and encourages it to be. For full effectiveness each of the three parts — training, an efficiency-based benchmark system, and EMIS — must be considered as aspects of a single strategy. ❖

Douglas M. Windham is a researcher at the University at Albany of the State University of New York. This article is condensed from a chapter in the book entitled Indicators of Educational Effectiveness and Efficiency published by IEES, Florida State University. An expanded treatment of these concepts appears in D. Windham and D. Chapman, The Evaluation of Educational Efficiency: Constraints, Issues, and Policies, published in 1990 by JAI Press, Inc.

Raising Test Scores in Lesotho

by Barbara O'Grady and Gerard Mathot

Teachers in rural Lesotho are hampered by the problems inherent in teaching in remote and inaccessible areas: they are frequently without support. Also, the teachers in rural schools are often underqualified and don't know how to plan classes or teach effectively, while those who are qualified are often so discouraged by the difficult and isolated conditions that they cannot use what they know.

In 1988 the Basic and Nonformal Education Systems (BANFES) Project in Lesotho instituted the Primary Inservice Education Program. The program, called the DRT program because it centered around district resource teachers, trained 46 experienced and qualified primary school teachers, or master teachers, to visit, advise, and consult with other primary teachers who worked in remote schools that had fewer than five teachers. Four senior teachers (SRTs) were selected to visit and support the DRTs in the field.

The DRT program focused on small schools that were often far from the main roads and accessible only by horseback, where teachers have not received much support. These small schools practice multigrade teaching, which has its own special problems. The DRTs

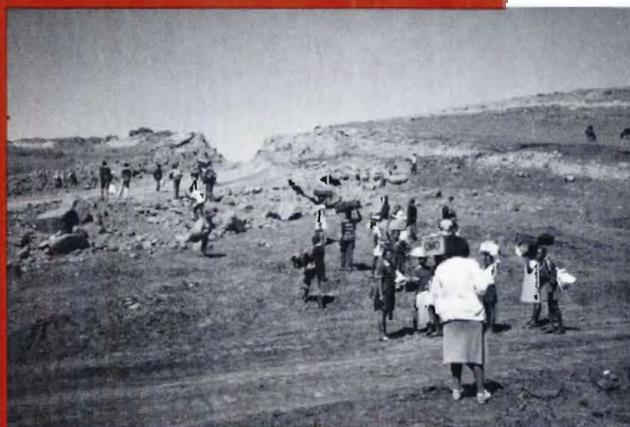
help these teachers in a supportive and non-judgmental manner. DRTs visit about ten schools each, usually four times a year, and remain there for several days. They help rural teachers create instructional materials from the environment (since the remoteness

of the schools means that textbooks and other instructional materials are hard to come by). When DRTs cannot solve a problem, they often contact the school manager or District Education Officer to let them know the difficulties. DRTs also organize meetings for teachers, other school staff, and parents to encourage community involvement in the school and get help with such work as supervising classrooms or extracurricular activities, cooking school meals, and constructing or repairing the facilities. When DRTs identify problems common to a number of teachers, they organize two day workshops for all teachers in one of the schools or at a convenient center. The DRTs have written a practical handbook to use as a resource book for working with multigrade teachers.

In 1990 BANFES personnel decided to look at data on the Primary School Leaving Examination (PSLE) to see if they could draw any conclusions about the DRT program. They assumed that, after a little more than one year of the program, there would be no significant change in test scores. However, from 1988 to 1989 the pass rate for the entire country increased by 6%, but the pass rate for DRT schools during that year increased by 17%, or, almost triple that of the rest of the country.

The program was so successful that the MOE asked USAID to continue it until December, when the Ministry could fully incorporate it. The Ministry also established 44 new teaching posts for DRTs, and three posts for the SRTs so that they can be paid on a special Resource Teachers scale. In June the Ministry added an additional 31 DRTs to the program. The new post of Primary Inservice Education Program Coordinator will be included in the MOE educational estimates for 1992. In the meantime, a former Senior Resource Teacher (SRT) has been appointed the Acting DRT Coordinator.

At present the DRT program costs approximately \$20 per pupil per year. Start-up costs will be eliminated from this point on. For example, training for the



District Resource Teachers start out in an open bed truck

Along the way they encounter a rock slide and need to clear the road before they are able to continue

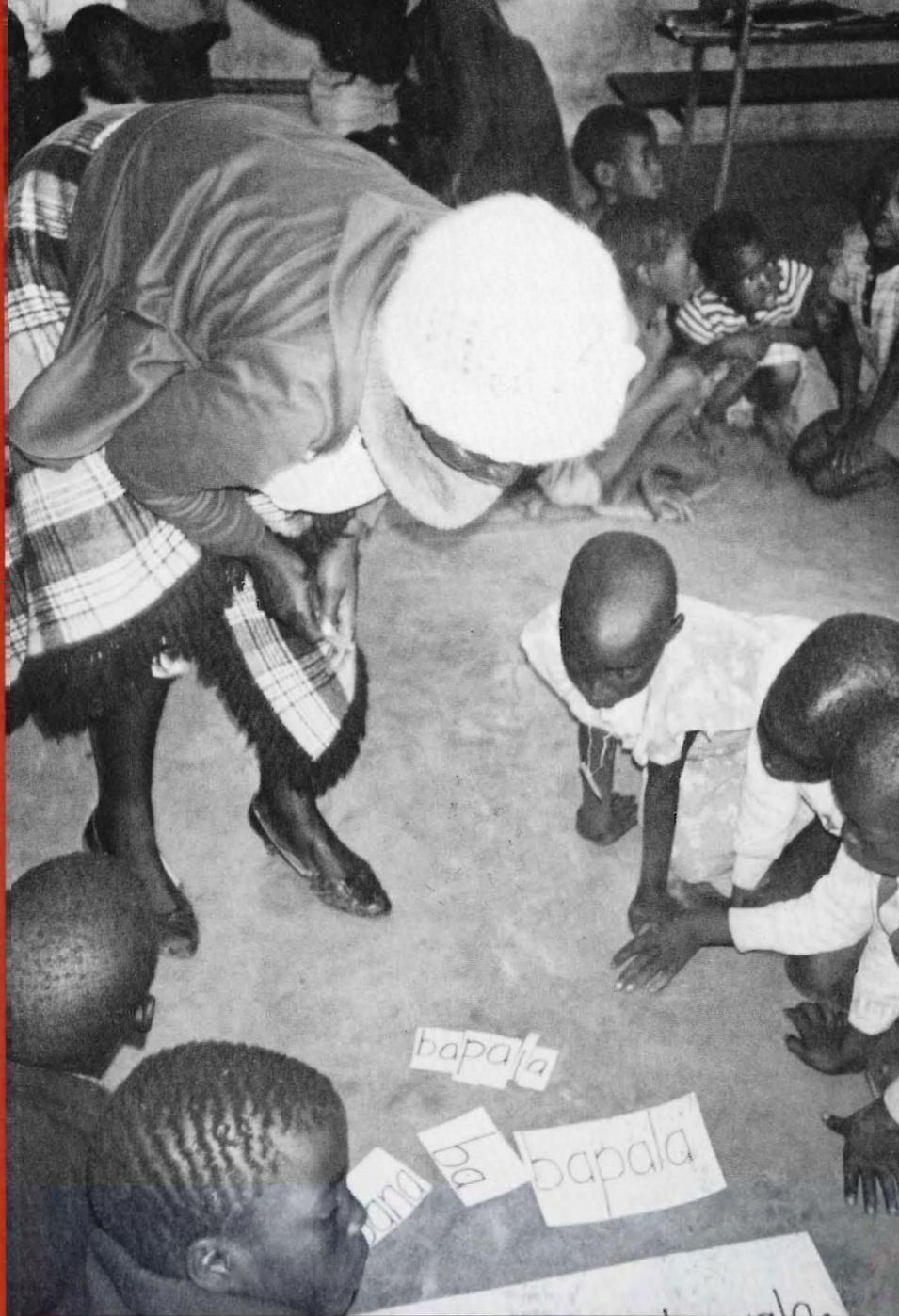
Students help carry materials to the school

new DRTs will be provided by the current, trained DRTs, eliminating some of the high costs associated with expatriate trainers. Training materials, such as the DRT teaching handbook, will only need to be reproduced. Eventually, if the PSLE test scores continue to improve, and more children complete the seven years of primary school, more funds will be available in the educational budget to offset the costs of the DRT program.

A number of elements combined to make the DRT program a success:

- The program is a joint effort between USAID and Lesotho that places the major responsibility in the hands of Lesotho trainers and teachers. District Education Officers have been involved at every stage, beginning with selection of the master teachers.
- The program has support at every educational level: national, district, classroom, and community.
- The program uses a school-based teacher support model based on the master teacher concept.
- The program functions within the existing educational system, and has a clear reporting hierarchy.
- The selection process for the DRTs is effective. District Education officers propose the candidates and interviewed by BANFES personnel and the MOE.
- DRTs offer systematic follow-up of classroom teachers, extending their support period.
- Community involvement is encouraged.
- Teachers are offered a new career path. ❖

Barbara O'Grady is a senior program officer at the Academy for Educational Development, 1255 23rd Street, NW, Washington, DC 20037, USA; Gerard Mathot is BANFES technical advisor to the DRT program.



Resource Teachers helping in the classroom. District Resource Teachers (DRTs), or master teachers, who are the heart of the Primary Inservice Education Program in Lesotho, are experienced primary school teachers who were recommended by District Education Officers and chosen after interviews with the Basic and Nonformal Education Systems (BANFES) project officials.

**Bottom left: Teacher demonstrates for students
Bottom center and right: Students practicing with new instructional materials**



All photos by Joy Guthrie



Exposing the Myth of the National Average

by Thomas Cassidy

Geographic Information Systems (GIS) help in visualizing large scale, but often elusive, social trends and developments

The development of education systems is severely limited in many countries by their inability to identify disparities across regions, subregions, communities, and individual schools in terms of general conditions, resource allocations, and outcome measures. Decisions about resource allocations, policy interventions, and implementation become highly politicized activities, and educational development continues to be measured in terms of incremental advances in the "national average." Districts without strong political voices, often the most needy, are regularly neglected, while the level of resources directed to other districts is inordinately high. National averages obscure the fact that conditions are not very good and are not getting any better for many children.

Computer-based geographic information systems (GIS) are well suited for supporting and reporting the results of disparity analyses in education. Prototype systems have been developed and tested in Egypt, Jordan, three of four provinces in Pakistan, and Honduras. These prototypes have been adopted as the basis for revising existing education information systems. However, actual use of the prototype systems has been limited almost exclusively to use by senior education officials in discussing issues with strong political overtones.

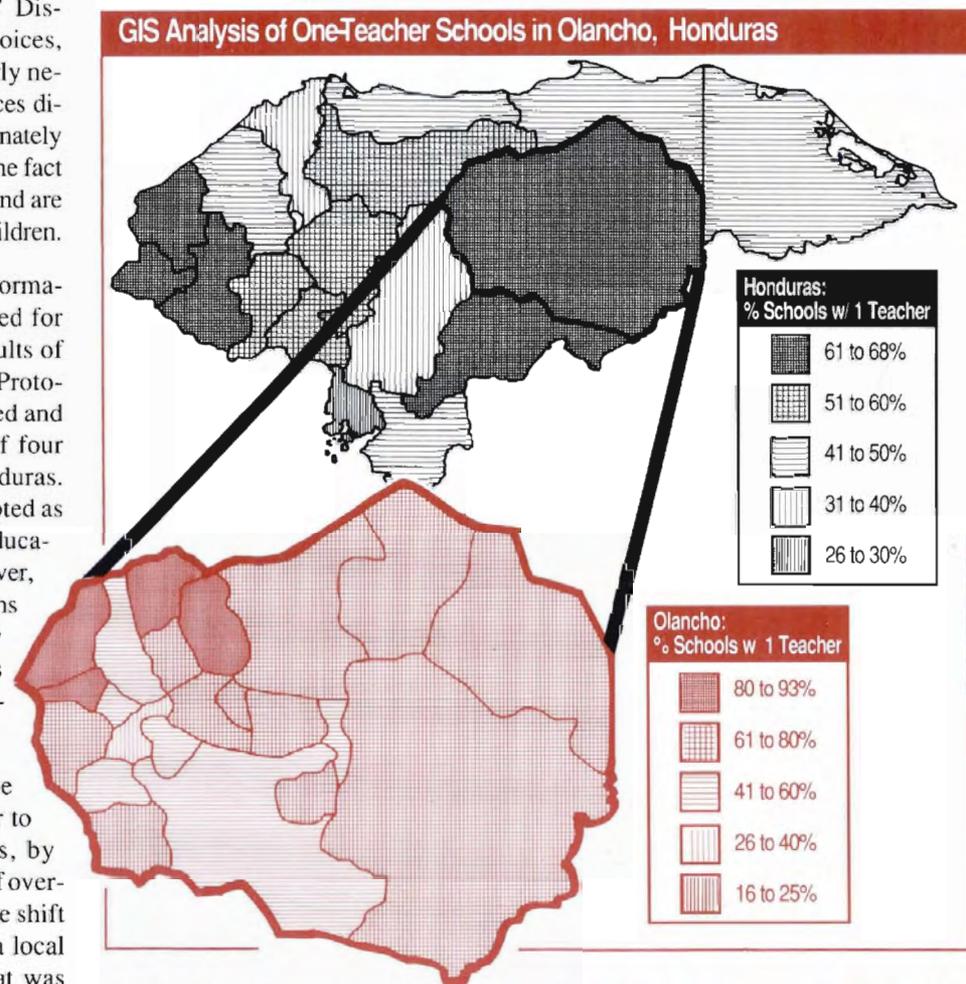
In one country, for example, the system was used by the minister to rebut criticism from the press, by showing that the large number of overcrowded classrooms and multiple shift schools was not a national but a local problem, and by indicating what was being done to address this problem. In another country, the secretary of education used the prototype system to demonstrate where new schools were most needed. He was attempting to wrest control of 5 to 10 percent of educational resources from provincial

assembly representatives, who controlled more than 50 percent of those resources. In a third case, the system was used to stimulate policy discussions by highlighting the disparate distribution of primary school teachers in the country.

The current high levels of interest in computers provides an opportunity to reinvigorate educational development

by challenging bureaucratic mechanisms. Research shows that information systems which facilitate disparity analysis are particularly well suited for enhancing dialogue on educational development. ❖

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GIS display regional disparities of one-teacher schools in Honduras. When school data collected in Honduras by Project BRIDGES researchers were loaded into GIS, the team was able to provide computer-generated maps to graphically display their locations throughout the country. The country map indicating the range of averages within each municipality shows that Olancho has 61% to 68% schools with one teacher. However, the GIS detail of Olancho reveals local disparities that far exceed the average for the municipality as a whole.

The New School Program in Colombia

by Vicky Colbert, Clemencia Chiappe, and Jairo Arboleda

Multigrade classrooms and child-centered learning adopted nationwide

The New School Program in Colombia was organized in 1975 as a system of primary education that integrates curricular, community, administrative-financial and training strategies. It responds to the problems of rural education by providing active instruction, a strong school-community relationship, and flexible promotion, which allows students to advance from one grade to another at their own pace. Children can leave school to help their parents with agricultural tasks, or for any other valid reason, without jeopardizing their education. Since the lack of teachers is a major problem in rural primary education, the New School Program is designed for schools that have only one or two teachers to teach all the grades (multigrade teaching).

The New School Program addresses problems of high dropout and repetition rates. Instead of the teacher and the school schedule imposing the pace of learning, the New School's flexible promotion is based on the child's rate of learning.

Innovations such as these, which are made at the child's level, require changes in curriculum, in teacher training, in the administrative structure, and in school-community relations. Accordingly, the New School Program developed concrete strategies in these areas. At the same time, the Program was designed with the idea of eventually expanding throughout rural Colombia.

The New School curriculum is oriented towards inductive, concrete, active learning that is relevant to the child and includes: study guides (self-instructional

materials for children from 2nd to 5th grade in natural science, math, social studies, and language); a school library containing reference materials; activity or learning centers; and a school government. Curriculum can be adapted for different regions, using indigenous materials, local folksongs, legends, and proverbs, encouraging children to apply what they know in their real life while learning about their regional culture.

Training and follow-up for teachers and administrative agents are in-service active training workshops rather than informative courses. Teachers are trained to become facilitators rather than lecturers, to assume a leadership role in the community, and to regard the administrators and technical assistance positively. They are trained to handle the New School curriculum, to adapt the school timetable to accommodate flexible promotion, to adapt the study guides to each child's level and environment, and to handle several grades at once.

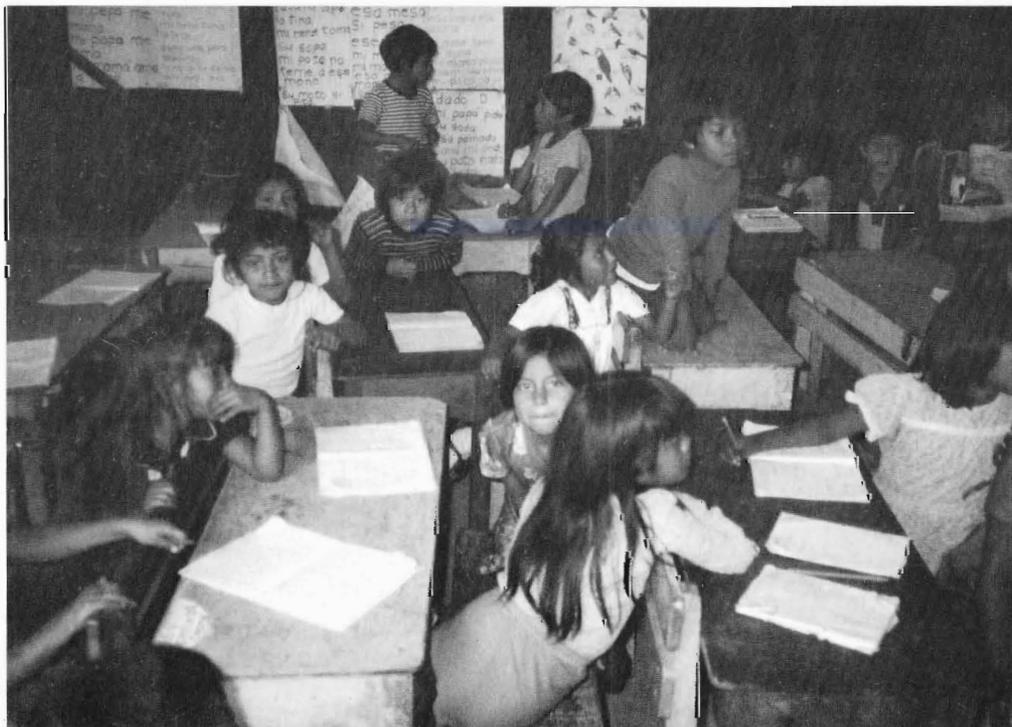
Administrative agents are trained to become an immediate resource person and technical support for the teacher, to organize teacher training workshops, and to give teachers positive attitudes towards working with them and the New School Program. Administrators also replicate their own training workshops with the teachers.

Overall community improvement is promoted by the New School in a variety of ways. As the first step in community development, teachers are shown how to prepare a community map, a family information register, and a calendar of agricultural, social, and cultural events. Folksongs, stories and myths contained in the curriculum also become a source of cultural information for the community. Children also participate in health, sanitation, and nutrition activities with their parents and siblings.

Evaluations show that students in the New School, where one or two teachers are responsible for several grades, are as creative as students in rural schools that have one

THE NEW SCHOOL *continued on page 9*

Promotion through grades is progressive and flexible in the New School. Children can study and continue helping their parents at home. Self-instructional workbooks help develop skills, attitudes, values and knowledge that can be immediately applied within the community, thus strengthening the link between basic education and individual and societal development.



Changing Views

Manzoor Ahmed, an economist and author of The Economics of Nonformal Education, has worked with the United Nations Children's Fund in Beijing, China. He has been a leader in establishing the case for non-formal learning as an effective and efficient educational method. The following is taken from an interview with Dr. Ahmed that took place at Harvard University with FORUM editors Pamela Summa and Christina Rawley.

Pamela Summa: You have written that "monetary values seldom represent the true value or significance of the real resources of the education system."

Manzoor Ahmed: The learning process is not an assembly line production where it's meaningful to talk about inputs and calculate and measure and assign a monetary value to them. Certainly there are human and physical inputs and it's important to look at them economically, but you can't take that as the entire value of the resources, or the total inputs into a learning situation. One cannot lose sight of the human inputs that cannot be measured in terms of monetary value, such as the time the students spend in school and how to use it effectively. You can attribute some monetary value to this, but it is never the whole story. How the children's time and the teachers' time are used can't be firmly calculated in terms of money. On the one hand you have to take into account the students' motivation, their desire to learn, and on the other how teachers arouse this desire, how they respond to it. You're talking about a process and if the motivation is there, the process is much more effective. If it is not there, you go through the motions and nothing happens. But these things are not captured in a financial calculation.

Christina Rawley: How have approaches to education and development changed since 1975 when your book was first published?

MA: I think there is a greater awareness of the importance of the human factor as the central concern in national development. This is new, although some people have been talking about it all along. In the '60s people talked about material production and the distribution of material goods. Actually, they weren't even concerned with distribution then, just producing more. In the '70s distribution became more important and so did the idea that people's basic needs should be met. At that point there was some recognition that the hu-

man resources should be looked at, not just the material aspects.

Today instead of thinking of human resources as an input into the development



Wang Ying

process, human development is itself the goal — people realizing their own potential, living in happiness and peace. Rather than producing material goods and consuming them, we are becoming aware that the resources on this planet are finite and there have to be some limits on how much we consume.

So there is a convergence of the ideas of human development and sustainable development...

CR: What do you mean by "sustainable development?"

MA: In the past sustainable development meant that development activities continued when... resources could come from within the system, instead of from outside agencies. But now sustainability means the preservation and conservation of society and of the environment, so that human societies can continue to exist and can do so in harmony with nature. So there is a convergence of the ideas of human development and sustainable development, and of social and economic goals. I think future directions in education and all other spheres will have to take this into account.

THE NEW SCHOOL continued from page 8

teacher per grade. The New School students' self-esteem is much higher, however, and the girls' self-esteem is as high as the boys'. In tests on socio-civic behavior, math for third grade, and Spanish for third and fifth grades, New School children scored considerably higher than children in traditional rural schools.

The average costs for the New School Program are: teacher training per teacher for a year is U.S. \$82; the school library is U.S. \$150; in 1989 the cost for study guides for one student in four subjects came to U.S. \$15. (Costs per student are really only one-fourth of this amount, since the same materials are used at the school during a four-year period.)

Lessons for Planners

The main factor that contributed to the success of the New School as it expanded nationwide from a pilot program lies in its flexibility. The child centered, multigrade model is one that adapts to the needs of the people it serves. When the New School program was adopted nationwide, it was supported with full political commitment and sufficient government funding. Other factors of interest to planners are:

- The roles of researchers, planners, and administrators were well coordinated as a team effort.
- Parents, teachers, administrators, and children participated in planning, and there was a link between building knowledge and taking action.
- The organizational capacity of the pilot program was expanded. A core team remained together and moved to key leadership positions during expansion. Supervisors assumed the role of teacher trainers, thus legitimizing the classroom innovations. ♦

For more information, write to Vicky Colbert, UNICEF, Bogota, Colombia.

Privatization Reforms: How Effective Are They in Latin America?

by Juan Carlos Tedesco

Increases in achievement results do not necessarily depend on the public or private character of the school. The best performance rates are linked to instructional dynamics that include well-defined objectives, shared work methods and traditions, and team spirit.

Privatization is one of the most important lines of reform in Latin American countries. In the past few years, goods and services traditionally provided by state-run enterprises have been transferred to the private sector, including education activities. Although the privatization of business is widely accepted, privatized education remains a topic that is intensely debated.

Traditionally the most dynamic actors in the private sector in Latin America have been various religious groups. In the past years, however, the ongoing secularization of society has stimulated the participation of the Church, private companies, parents' associations, and educational authorities, as well as the state through grant aid.

But has state subsidization of the private sector increased participation? If so, among which groups? Public and private enrollment rates in urban and rural areas indicate strong disparities. Urban schools recruit pupils from the medium and high socioeconomic levels of society, provoking a circular effect: students of privileged family backgrounds have access to education systems with the best equipment and personnel, and they obtain higher results than public school students.

Data from Santiago indicate that the private schools established in the last decade are achieving significantly inferior results than those created earlier. Also, the new grant-aided schools are much more similar to the public schools than the old private institutions traditionally frequented by middle and upper class children.

Studies have shown that financing a private school that offers free education is more cost effective for the state than financing a public school, but data from Chile and Uruguay show that academic achievement is sometimes higher for lower class students in public schools than in private schools.

The table to the right presents data on the

performance of students in Spanish and mathematics examinations in Chilean private-paying, grant-aided private and municipal schools according to social backgrounds and size of cities. This data shows that the performance levels of those in higher socioeconomic groups were three times higher. It also shows that performance indicators have decreased in all groups between 1982 and 1988, when privatization took place.

satisfactory levels of instruction, are located in a group of public schools that share similar institutional characteristics (such as what kind of personality the Director has, the experience of the teachers, and the amount of direct contact between the teachers and parents).

However, good results obtained by pupils of low income families do not necessarily de-

Chile. Performance in Spanish and Mathematics (net scores) Fourth Grade, Primary Schools: 1982 and 1988

Type of School	Socioeconomic Level	Size of City	Spanish		Mathematics	
			1982	1988	1982	1988
Private paying	high	metrop.	72.0	69.3	66.0	62.3
	medium	metrop.	65.5	62.8	56.8	50.8
Private subsidized	high	metrop.	53.8	55.7	46.5	47.9
	medium	metrop.	43.0	45.4	35.5	37.4
	low	metrop.	34.9	33.3	27.7	27.7
		rural	27.3	25.8	17.2	22.1
	very low	metrop.	0.0	18.6	0.0	24.4
		rural	0.0	6.4	0.0	10.0
Municipal	high	metrop.	59.1	0.0	47.1	0.0
		rural	48.6	0.0	42.7	0.0
	medium	metrop.	37.8	41.2	30.3	35.0
		rural	37.3	37.2	30.6	29.7
	low	metrop.	31.0	26.2	24.3	22.5
		rural	26.7	19.1	18.4	18.3
	very low	metrop.	0.0	23.9	0.0	20.8
		rural	0.0	13.8	0.0	15.0

Source: C/PEIP, Studies Series No. 81 and SIMCE data, 1988

Data also show that students from very poor socioeconomic groups in municipal schools tested twice as high in Spanish as those in private schools.

In Uruguay, where private primary education has been relatively negligible (17.2% in 1975 and 15.6% in 1989), private school attendance decreased in all income groups except the highest in the city of Montevideo. Differentiated analysis of performance examinations in mathematics and Spanish show that the greatest number of pupils of low socioeconomic background who achieve

pend on the public or private character of the school. According to the data, the best performance rates are linked to institutional dynamics that include well-defined objectives; shared work methods and traditions; team spirit and broad assumption of responsibility for results. ♦

Juan Carlos Tedesco is Director of the UNESCO Regional Education Office for Latin America and the Caribbean, located at Enrique Delpiano 2058, Plaza Redro de Valdivia, Casilla 3187, Santiago, Chile.

Umuntu u hu muntu ngabantu: A person is a person because of other people

Innovators in Education

Ubuntu learning process used to initiate change in Natal, South Africa

Jabulani Mabaso. One in every 20 black students that enters the school system in South Africa reaches the final year of secondary school. When over half of his class in Soweto failed their secondary school graduation examination in 1986, 18-year-old Jabulani Mabaso decided to do something about it. In four years Jabulani built an organization that operates eight learning centers catering to 580 students, demonstrating that a learner-centered approach can dramatically improve examination pass rates.

Personal Background

When Jabulani Mabaso graduated from secondary school in Soweto he faced a difficult choice: should he pursue the route to higher education opened up to him by his impressive high school record, or remain with his classmates who had failed their school graduating examinations? He chose to work with his classmates to find a way to give them another chance to graduate from high school. Simultaneously he pursued night studies in public relations and management, fields he realized would help him develop the project.

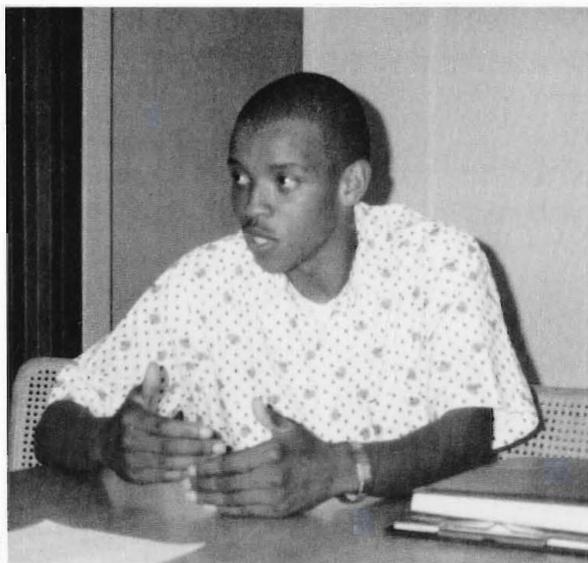
His response reflected both his background and his dedication to solving social problems. Jabulani's father, a Lutheran pastor, taught him at an early age that self-improvement and community service were closely related parts of a whole person. African philosophy underlies this teaching, which is often summarized in the phrase: "*Umuntu u hu muntu ngabantu*," meaning "a person is a person because of other people."

The Idea

The Matric Student Movement & Study Improvement Project (MASMOVE), which was founded by Jabulani Mabaso in 1988, gives students who have failed secondary school another chance to matriculate. (Obtaining "matric" is a prerequisite for tertiary educational institutions as well as a requirement for many jobs.)

Most MASMOVE students make very effective use of this second chance. The MASMOVE pass rate is 87 percent.

Jabulani explains that MASMOVE's results are due to its approach to learning. Where the public school is authoritarian and teacher-centered, MASMOVE is



learner-centered. The first principles of the project are student self-motivation and self-discipline. These principles are elaborated through the Ubuntu learning process where the learner is central to the process. "The information and experience that the student brings to the learning situation is made the bridge between the known and the unknown. The student merges the known and the unknown, transforms it and creates a new synthesis."

MASMOVE encourages students to look at the educational constraints such as inadequate textbook supplies, demoralized teachers, and political violence as valuable learning opportunities. Students find that by planning carefully they can share the few textbooks in ways that allow all of them to prepare lessons. They learn to engage their teachers constructively and to recruit the best teachers to join their study groups. All MASMOVE teachers are volunteers, and the students have the major voice in teacher evaluations.

The Strategy

MASMOVE is based in Natal, the most conflict-ridden corner of South Africa, where political allegiance became a necessity for survival as the "if you are not with us you are against us" mentality triumphed. School grounds often became literal battlefields. Against this backdrop, MASMOVE's first step was to create a neutral zone in which the project could function. Students entering the project agreed to leave their politics at the door.

MASMOVE challenged approaches used in the public school system — both the negative attitudes of students, teachers, and staff, and the authoritarian teaching approaches used in the classroom. Students meet in study groups of six to fifteen students for six days a week. On three of those days voluntary teachers present lectures, answer questions, and guide student-led discussions.

MASMOVE is now opening learning centers in other parts of the country, while broadening its curriculum to include human resource development. Drawing on specialist organizations to run workshops for MASMOVE students in these areas, the project is simultaneously designing a learner-centered, human resource development package to promote to the formal school system.

Jabulani is hopeful that current national political negotiations will lead to a democratic settlement that can underpin a reconstruction of the tattered school system. When it does, MASMOVE's approach to learning will offer a concrete example of educational methods for a new democratic order. ❖

Jabulani Mabaso is an Ashoka Fellow. For more information, please write to the Ashoka Foundation, 1700 North Moore Street, Suite 1920, Arlington VA 22209.

What's Happening

October 7-9

How Schools Improve
Oslo, Norway
Contact: World Bank
Education Section
1818 H Street NW
Washington, DC 20433 USA
World Bank/NORAD

October 7 - October 14, 1991

**Regional Workshop - Bangladesh
UNICEF Educ. for All Workshop**
New York, NY
Contact: Frank Dall
UNICEF House
3 United Nations Plaza
New York, NY USA
(212) 326-7785

October 10-12

**Attaining Functional Literacy:
A Cross-Cultural Perspective**
Tilburg, The Netherlands
Contact: L. Verhoeven
Linguistic Department
University of Tilburg
PO Box 90 153
5000 Tilburg, The Netherlands

October 30 - November 1

**Learning for All: Bridging
Domestic and Int'l Education**
Alexandria, USA
Contact: US Coalition for
Education for All
1616 North Fort Myer Drive
11th Floor
Arlington, VA 22209 USA

November 5-6

**Advanced Information
Technology and Learning**
Milton Keynes, United Kingdom
Contact: F. Butcher
The Open University
Inst. of Ed. Technology
Walton Hall
Milton Keynes MK7 6AA UK

November 20-24

**An International Forum
"Learning Together/Working
Together: a South-North Dialogue"**
Washington, DC
Contact: S. Kindervatter
OEF International
1815 H Street NW
11th Floor
Washington, DC 20006 USA
(301)-953-4834

November - December

**Pan Commonwealth Training
Workshop on Developing
Educational Consultancy Skills**
Vanuatu
Contact: S. Packer
ComSec Education Programme
Marlborough House
Pall Mall
London SW1Y5HX, UK
Commonwealth Secretariat/AIDAB

December 2-5, 1991

**Desarrollo en Equidad (UNESCO-
CEPAL)**
Contact: J. C. Tedesco
OREALE
Plaza D. de Valdivia
Santiago, Chile

WHAT'S HAPPENING IN 1992

January 27-30, 1992

**Africa Policy Dialogue and Research
Collaborative Meeting**
Place: to be announced
Contact: Changu Mannathoko
Secretariat for the Collaborative
University of Botswana
Gaborone, Botswana
Fax: 267-356-591

March 12-15

**Comparative and International
Education Conference**
Annapolis, Maryland
Contact: Stephen Heyneman
The World Bank
1818 H Street, N.W.
Room H-8047
Washington, D.C. 20433 USA

June 8-14, 1992

**VIIth World Congress
of Comparative Education**
"Education, Democracy and
Development"
Prague, Czechoslovakia
Contact: Prof. Frantisek Singule
M.D. Rettigove 4
CS-116 39 Prague 1, Czechoslovakia
Fax: 0042-2-290225

June 20 - July 31, 1992

Educational Planning Workshop
Cambridge, Massachusetts USA
Contact: Noel McGinn
Harvard Institute for International
Development
One Eliot Street
Cambridge, MA 02138, USA
Fax: 617-495-0527

Please send calendar submissions to:

The FORUM

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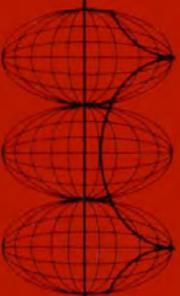
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