ABSTRACT
                In most developing societies, the state assumes
responsibility for control of education. However, in recent years,
educational leaders in a number of countries along with policy
analysts in the donor community have proposed a number of
arrangements for decentralizing education. This paper draws primarily
on the experience of Sri Lanka to examine the potential of several
examples of educational decentralization. The first section describes
the components of educational systems in Sri Lanka and discusses the
availability of resources and services, and the ways these are
mobilized. This is followed by a discussion of decentralizing policy
options, with reference both to school level and distribution of
resources and services in various developing countries. The next
section reviews the historical c.rcumstances in the developing
nations that gave rise to centralized education systems--the
requirements for national competitiveness, social stability, and
equality of access. Arguments for and against decentralization
follow, along with a discussion of the political economy of
decentralization, and of the cluster concept as an intermediate
reform for coordinating programs and facilitating communication among
isolated rural schools. The paper concludes with 12 recommendations
to guide the decisions of educational leaders in the development of
policy options. (TE)

The Decentralization of Education

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Project BRIDGES

In most developing socities, the state assumes broad respon-
sibilities for the control, management, and finance of most of
the formal organizations established to provide education to the
public. This was not always the case, and in recent years,
educational leaders in a number of countries as well as policy
analysts in the donor community have proposed a variety of "decen-
tralized" arrangements.

Rondinelli's (1981) general taxonomy of decentralizing
options for public organizations extends from limited delegation
in the responsibilities of public officials through deconcentration
and devolution to full privatization of the control, management,
and finance of these organizations. For the educational sector,
a useful distinction can be made between the front-line organiza-
tions which conduct the educational process and the support
organizations which provide schools with essential resources and
services. Proposals extending over the full gamut from delegation
to privatizatization have been considered for the educational
sector, and a number of reforms have been attempted. It may be
that the organizations providing resources and services offer the
most extensive reform opportunities. In this paper, drawing
primarily on recent Sri Lankan experience, we will examine the
potential of several examples of educational decentralization.

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The Components of Educational Systems

Education is a complex process realized through a variety of experiences including those provided by the mass media, community events, military service, and family circles. But the heart of the process is that education which occurs in the formal educational system, and it is especially this part that is most typically encompassed in a centralized bureaucracy.

Schools and Levels. Formal educational systems are usually divided into several levels such as kindergartens, primary schools, lower secondary schools, upper secondary academic and vocational/-technical schools, and a range of tertiary institutions for disciplinary and professional education.

In most systems, particular schools specialize in one or other of these levels, and the bureacracies to support the schools tend to be similarly specialized. But there is considerable variation in these respects. For example, in Sri Lanka, the top schools, labelled Type IA schools in the official lexicon, provide a comprehensive program of education from kindergarten through the collegiate level (Grade 13) that can prepare students for the Advanced level examination in all subject areas. At the same time there are schools in Sri Lanka that only provide kindergarten. Some of the Type IA schools in Sri Lanka have over 4000 students while many Type III schools offer only the primary grades and have fewer than 50 students.

Resources/Services. There is an extensive body of research providing insights on correlates of effective schools. The

research indicates that schools with a sufficiency of key resources have more impact on their students; especially critical are trained teachers and textbooks. In developing countries, even when there is a sufficient quantity of these resources, they often are not provided to the schools on a timely basis.

At least as important as the availability of resources are the ways in which these are mobilized: schools where teachers regularly show up and effectively use their time to keep students on task make the most difference. Many factors contribute to effective teaching including adequate monetary award, strong community support, and the intangible factor sometimes called school culture or school spirit, schools with well-focused and integrated school cultures have the most impact on their students. Policies to alter the educational process, including the various options associated with decentralization, are finally accountable in terms of their influence on the success of schools in obtaining essential resources and in fostering a vital climate.

The bureaucracies to support schools tend to be specialized according to two principles, school level and nature of resource/-service. For example, many educational ministries have divisions respectively for primary, secondary, vocational and higher education. A second dimension of specialization in such bureacracies relates to the resources and services they provide: curriculum (including books and materials), personnel including teachers and teachers salaries and other staff, student evaluation (tests and exams as well as health forms), supervision both of the teaching

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process and school adminstration, financial support for day-to-day operations, building construction and maintenance.

Decentralizing Policy Options

Decentralizing (and centralizing) policy options can focus on either of these principles: level or resources/services. In the African context where all levels of education tend to be underdeveloped and higher education tends to command such a large proportion of national educational budgets (upwards of 70 percent in some cases), it is common to focus on policy options that influence different levels. For example, one of the most frequently advocated "decentralizing" proposals is to remove or reduce the tuition subsidy from higher education, and use the recovered income to augment the revenues provided to basic education. Similarly in Sri Lanka, it has been suggested that some of the most prestigious schools should be privatized to free revenues for other purposes.

(However, proposals of this nature often encounter severe reactions from student groups who see little reason for paying more tuition than earlier cohorts. The student groups, as they tend to come from privileged homes and are viewed as future elites, have influence; thus these privatizing proposals often fail to get implemented. School administrators also may resist these reforms for they require administrators to assume greater responsibility for the finance and administration of their schools while leaving control in the hands of government officials.

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Privatizing proposals are more likely to succeed if they enable the establishment of new institutions for which there is strong demand and which otherwise could not be established such as English-medium schools alongside a public system dedicated to instruction in local languages as in Pakistan.)

(Table 1 about here)

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Table 1

CENTRALIZATION-DECENTRALIZATION TYPOLOGY
FOR PUBLIC EDUCATION

	Centralized Model	Mixed Model	Decentralized Model
School Organization	Minimum schooling requirements and school organization (pre-school, primary, secondary, vocational, higher education) set by the central government.	The central government determines organization of the schooling system, but the local community helps determine how many years of education are provided, often through at least temporary self-finance of years beyond those funded or authorized by the central government.	Organization of schooling is almost always set by the central ministry of education; the local community decides how many years and levels of education will be provided.
Curriculum and Teaching Methods	Curriculum, teaching materials, pre-service, and in-service instruction provided by the central ministry of education.	Curriculum, teaching materials, and in-service instruction established and provided by the central government or through its regional delegations.	The basic contents of the curriculum are set centrally, but textbooks may be selected and purchased locally, and in-service instruction may be provided locally or regionally depending on the size of the locale.
Examinations and Supervision	Examinations set and evaluated, as well as teaching performance evaluated by central ministry of education; responsibility for direct supervision often lies with regional administrative offices.	Examinations are set centrally but usually administered and evaluated regionally; the instruction, often through regional or district offices.	No national examination system exists; all examinations are set and evaluated locally; the central or regional government usually provide limited supervision of teachers and schools.
Teacher Recruitment and Compensation	Central government sets accreditation standards, provides teacher education, sets teacher pay scales, and directly pays the teachers; in some cases (Francophone Africa) teacher recruitment, pay, and promotion may be under control of the civil service ministry rather than the ministry of education.	Teachers may be selected by the local school authority, but the central or regional government typically prescribes pay scales; accreditation standards are also set centrally.	Teachers are selected and pay scales are set by local government; accreditation standards are typically set by the central government, but they may not be enforced.
Finance of Recurrent Expenditures	All recurrent expenditures fully funded by central government excepting minor user fees; nonteacher resources distributed to schools.	The central or regional government provide most funding of local schools in the form of block grants or project grants, but some portion of educational expenditures are funded by local revenue sources, and the local community has some influence on total expenditure levels.	Local government funds elementary and sometimes secondary education from local revenue sources; user fees or "voluntary" contributions to the parents-teachers associations may be required, block grants or project grants may be provided by the central government.
School Construction and Finance	Central government sets construction standards, which may be uniform for the entire country, and covers all construction costs, although the local community may be required to provide labor and/or some construction materials.	Construction standards are set by the central or regional government, and matching funds are often provided for school construction; in some cases the matching funds take the form of a promise by the central government to cover some portions of recurrent expenditures, often teacher salaries.	Land and materials for school construction are provided by the community; labor may be voluntary; local construction standards may apply.

A second possible decentralising approach is to focus on resources and services. A recent study by Robert Winkler (1987) develops a typology of practices that are employed respectively by centralized, mixed, and decentralized systems for delivering selected resources and services.

The Winkler typology does not consider services that are critical in some systems: two deserving mention here are the procedures used for the selection and promotion of principals and the procedures used for carrying out school and teacher supervision. It is possible to locate supervision at any level from a centralized inspectorate general as in the case of many Francophile systems down to the school level in the American system. The appointment of principals normally is handled above the school level, but in systems where school boards are common, this also can be handled at the school level.

In considering strategies to alter resources and services, it may be observed that the most critical element in school education is the teacher-student relation, and in most developing countries over 80 percent of all educational expenses go for teacher's salaries. Obviously, a major entry point for changing the performance of schools is to somehow influence the nature of this highly labor intensive process. Apart from proposals to privatize schools, I am not aware of proposals to privatize the training or employment of teachers (though many systems have successfuly privatized the employment of staff for custodial, janitoring, and food services). Concerning teachers, the major

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direction of reform is to devolve their recruitment and supervision to lower levels in the management hierarchy as well as to tie teacher compensation more directly to teacher performance. A major focus of Sri Lanka's reforms has been the alteration of the conditions for the appointment, compensation, and supervision of teachers.

Relative to teachers, the remaining resources and services absorb modest proportions of national educational budgets. However, they seem more amenable to radical decentralization. A number of countries have experimented with new arrangements for examinations and many aspects of the curriculum service. For example, economies of scale for textbook printing once dictated large centralized operations, but recent technological change enables much greater diversification of this service; in some settings, the highest marginal returns may derive to plants that produce no more than 50,000 volumes annually. Concerning construction, Indonesia's Project Inpres suggests that local entrepreneurs can produce better and more valued school buildings at lower cost than a centralised bureau.

Recognizing the variety of options for both centralizing and decentralizing education, we turn now to the two major questions faced by educational reformers: (1) why have past policy makers chosen the prevailing arrangements, and (2) will changes in these arrangents lead to improvements, in terms of the most salient criteria?

Why Centralization?

Until the early nineteenth century education was largely a private matter, conducted in private homes with the assistance of tutors or in special schools sponsored by religious bodies or status groups. With the advance of industrialization, the popular demand for basic education quickened. In response to this popular demand, the modern systems of the United Kingdom and the United States chose to respect the integrity of private schools, and to erect alongside the private schools a complementary system of public schools governed by local bodies and financed largely from local revenues. But most systems organized since the early nineteenth century have elected a more centralized approach.

Napoleon Bonaparte took the first bold steps to nationalizing and centralizing education with the establishment of an elaborate sytem of lycees, grande ecoles, ecole normales and related institutions. Napoleon's concern was to insure a sufficiency of high-level technical talent for the realization's of France's dream of military and economic supremacy in the Imperial Era. Following in Napoleon's footsteps, the various German states took steps to formalize education, and especially under Bismarck this effort was extended to basic education; in Bismarck's view, the first years of education were ideal for implanting a code of loyalty to the state in the hearts and minds of all young people.

Most states that have been founded since have followed the example of Napoleon and Bismarck. The young leaders of Meiji Japan in the Charter Oath of 1872 insisted that all parents had a

duty to send their children to school. Initially the government, listening to American advisers, presumed that the parents would be sufficiently cognizant of their duty to pay the fees necessary to support local schools; but they were disappointed. Also, in the face of some local rebellions the government decided that schools might be a useful vehicle for inculcating a spirit of loyalty the emperor and the state. From 1879 a new centrally funded and administered school system was inagaurated.

The Bolshevik government, within the first year of its ascendency, declared a commitment to universal education through the tertiary level. Over time the system became progressively centralized, and it has become an important model for the socialist world.

In the areas of the world administered by colonial governments, education was not a high priority. However, the colonial government often took steps to discourage indigenous forms of education out of a concern that it might subvert their authority. As colonial governments matured, they often introduced a modest system of public education modeled on the practice in the home country in order to train civil servants as well as provide educational opportunities for the children of the colonial officers. The colonial administrations sometime allowed Western religious groups to establish supplementary educational systems for the local people; the local schools were subject to strict control from the colonial administration, but were allowed some latitude concerning administration and especially finance.

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The United Nations charter, composed in the twilight of World War II, declared basic education to be a universal human right. And the great majority of new states that have been formed since that time have taken steps to realize universal basic education through the establishment of publicly supported and administered schools. Under the leadership of the newly independent governments, the expansion of educational opportunity has been dramatic, especially under systems that are centrally organized (Coombs, 1985; Meyer and Hannah, 1982).

Sri Lanka when it obtained independence from England had a system of some 3000 largely private schools administered and financed by religious bodies and plantations that provided basic education for approximately one-third of the school-aged population. In 1960, following the ascendence of a socialist and pro-Singhalese government, all of the schools were nationalized, after which there was rapid expansion. By 1980, nearly 10,000 schools had been established offering opportunities for basic education to nearly 90 percent of all school-aged children (though beyond the primary level, the opportunities were less abundant). Public education was especially critical in improving education for plantation workers and isolated rural communities.

In reviewing the trend towards public education with centralized management by the state, three general impulses seem critical: (1) national competitiveness, the belief that a systematically organized educational system is critical for national strength in the competitive world-system; (2) social stability, the belief that

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schools and education under state control will nurture a public
that is loyal and obedient to state leadership; and (3) equality
of access, the belief that all human beings are equal and thus
equally entitled to education as a means of developing their
personalities. In specific nations, the relative weight of these
impulses varies: for example, Asian nations place greater stress
on competitivess while currently South Asia and Africa seem to
place more emphasis on access. Regardless, a recent review of
national educational plans of developing nations indicates that
_ll three impuses are now widely subsribed to. (Lewin & Little,
1984) Future educational reforms will have to take these three
impulses into account.

Why Decentralization?

By the mid-seventies the drive towards educational expansion
had made impressive progress, but was also provoking profound
sole searching by many third world governments. The financial
commitments for education were absorbing as much as half of the
national budgets with projections of an even greater burden in
view of population growth. While governments continued to spend
increasing amounts for public education and especially for the
salaries of educational personnel, the quality of education
seemed to decline due to such deficiences as a shortage of trained
teachers, low teacher morale, poor and irrelevant curriculums, a
poor distribution of textbooks and other materials, and a lack of
grass-roots involvement in education.

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The emerging situation was referred to as a crisis in world education demanding innovative responses. A variety of proposals were put forward including changes in the student-teacher ratio, a shift towards distance communication as a substitute for teachers, and various modes of decentralization.

One stimulus for the new interest in decentralization was the donor community argument pointing to the benefits from the privatization of at least some segments of the educational system, which in the literature is considered the extreme case of decentralization. Privatization was proposed both to tap new resources and to promote efficiency. But in most developing societies, due to the shortage of community resources, privatization was not a feasible alternative for the management or finance of basic education: for example, the great majority of communities are poor and while they can provide some non-monetary contributions, their capability of contribu' to the finance of education is sharply constrained; Sri Lanka's limited experiment in encouraging community contributions has demonstrated that the more affluent communities make proportional greater contributions with the net result of increasing the inequalities in the resources available to different schools.

Thus more limited forms of decentralization have been proposed in the expectation that they may achieve salutary results. The rationale argument in favor of limited decentralization holds that large government bureaucracies are inefficient in the delivery of services, and thus better education at lower cost might be

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realized by turning the responsibility over to officials closer to schools or to private governing bodies. While the arguments may have logical coherency, an empirical comparison of developed countries under centralized and decentralized management structures leads to contrary conclusions. Among educational experts, it is generally agreed that the more centralized educational systems (including Japan, France, and the Soviet Union) achieve a higher level of quality in basic education at lower cost than do the more decentralized systems (e.g the United States, the U.K., and Sweden). Moreover, the centralized systems achieve a higher level of equality of educational opportunity by most measures.

In recent years, however, politcal compromise has emerged as a another rationale for decentralization. A number of developing societies have been compelled by domestic political circumstances to tilt their policy towards decentralization. The Philippines was forced by Moslem rebels to grant partial autonomony to the province of Mindanao in the early seventies, and in 1987 Sri Lanka, in the effort to improve relations with Tamil rebels, decided to decentralize both its government and the related administrative services including education. Similar developments can be identified in at least a dozen developing countries over the past decade.

These two impetuses for decentralization pose different policy issues. In the former case, the concern is to select those strategies of decentralization which will enhance educational productivity while not sacrificing other goals. In the case of

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political necessity, broad decentralization becomes inevitable and the salience of some of the other educational goals are necessarily compromised. The policy concern is to identify and soften the decentralization of processes that might be too detrimental to national identity or the equal distribution of inputs.

The Arguments For and Against Decentralization

Our review of the two why's identified five broad issues underlying reforms towards or away from decentralization.

Academic Quality. Perhaps the original impetus for centralization was to raise the quality of education through spelling out high standards both for what the curriculum should cover and how much students should achieve as indicated in promotion and entrance exams; moreover, through systematic research at the center it is possible to develop a curriculum based on the most advanced understanding of human learning potential. Decentralizers maintain that higher quality can be realized if those directly responsible for the classroom process and most in touch with student progress have control over the setting of curricular goals, the acquisition of resources, and the determination of progress.

Appropriate Values. A major concern of all educators is to convey a sense of what should be valued to students. Centralizers stress the importance of conveying a common social code so that society will have order. Decentralizers stress the importance of individual or particularistic values treasured by local community or religious groups.

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Relevance. Centralizers focus on the relations between societies are argue that schools need to convey the knowledge and skills that will serve the national interest in international competition. Decentralizers observe that citizens live their lives in local and regional cultures and economies and need to learn the knowledge and skills appropriate to those settings; uniform national curriculums fail to prepare individuals for local circumstances and moreover cause difficulties for students as the language and symbols used in the curriculums include much "foreign" material.

Equality. Centralizers maintain that the only way to provide a uniform spread of resources and services is through systematic distribution from the center. Decentralizers are more concerned with the equitable distribution of resources by which they mean the provision of opportunities correspondent with individual position and ability.

Efficiency. Centralizers argue that multiple centers for the production and distribution of resources/services leads to much duplication of effort and waste. Decentralizers point out the economies of scale associated with smaller units of production; they also observe that smaller units enhance the relevance of education and improve the speed of distribution. Both sides maintain that their approach minimizes graft.

The arguments for and against decentralization focus primarily on the production of effective outputs by schools and only

secondarily on how these outputs are transformed into resources
for individual and social economic development. This is because
the process of transformation is protracted and difficult to
evaluate. Narrow economic analysis of policy options tend to
focus on the differential rates of return. This criteria is
difficult to employ in the analysis of educational policies.
Cost-effective considerations often enter into the evaluation of
educational policies, but as we can see such considerations are
complicated by the multiple criteria of effectiveness.

The Political Economy of Decentralization

While it is possible a priori to outline the potential
impact of different decentralizing options on the performance of
educational systems, such speculation is idle if it fails to
consider the liklihood of implementation. Decentralization
usually refers to reforms that alter the established system of
relations among the participants of educational organizations.
In most developing societies, important sub-groups of these
participants are either formally organized or can draw on the
resources of key status groups to express their views on proposed
reforms.

Officials are an obvious group affected by decentralization.
To the extent decentralizing reforms require officials to take up
offiices in less attractive places or to receive compensation
from unpredictable sources, they are likely to express reserva-
tions. Where a principle of seniority is established in the

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public service, it is difficult to offer new positions to individuals who are relatively junior in the system even if they have superior ability.

In a number of developing countries, teachers are organized in powerful unions that assert demands for salary increases and other privileges. Teachers are likely to be the largest group of civil servants, excepting possibly the military, and politicians who depend on the electorate to remain in office cannot ignore their voice. The unions may prevent alterations in the working conditions of employed teachers, though they have less influence over the status of new hires.

Students also are a potentially powerful force in the educational sector. Earlier we noted the proposal by several African governments to initiate tuition charges at the tertiary level and use the revenues to support the cost of education at lower levels. These proposals are often forcefully opposed by student groups.

Decentralizing proposals which do not have a major impact on the working conditions of these major groups are most likely to gain easy acceptance. Thus proposals affecting new recruits to teaching, new cohorts of students, or a new category of government service have more chance of realization than those altering the status quo. Similarly, proposals affecting newly created schools will not encounter the same obstacles as those directed to established schools.

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Centralization/Decentralization in Sri Lanka During the Eighties

Sri Lanka during the eighties provides an interesting example of educational decentralization, in view of both the complexity of the political context and the variety of new initiatives.

In 1977, following the electoral defeat of the socialist Bandarnaike government, the current government announced its intention to stimulate economic growth through a new export-oriented development program. The government was influenced by the capitalist free-trade model of the newly industrializing states of Southeast Asia in the development of its policies for various sector..

The strengthening of human resources became an important component of the new government's program. During the seventies, equality of access had been promoted through the rapid expansion of the number of schools. However, many of the recently established schools were inadequate. Thus the Education Reforms Committee of 1979 in proposing a number of new directions for education, especially stressed the concern to "reduce the wide gap between the smaller and poorer equipped schools and the very large fully equipped schools." The Committee's White Paper along with the 1984 document, Management Reforms for Education spelled out a number of reforms that have been implemented over the eighties.

Centralizing Reforms. Concerning textbooks and teacher appointments, the central Ministry of Education took bold steps to insure that all schools received essential resources through

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(1) Establishing a new Ministry of Educational Services and charging it with the task of printing and distributing textbooks free of charge to all school children, and

(2) Introducing into the rules of the educational service a requirement that all newly hired teachers would have to serve their first three years in a district that had a shortage of trained teachers. The latter reform struck at the traditional pattern where teacher recruits, often from urban educated families, sought to obtain jobs near their birthplaces. In a context of educated unemployment, most new recruits accepted the regulation, and over time it appears that increasing numbers of young people from disadvantated districts have become motivated to qualify for teaching jobs. Thus these two reforms have helped to improve the level of critical resources in the smaller and poorer equipped schools.

Decentralizing Reforms. Parallel with the above reforms, the central Ministry of Education has promoted several programs to strenghten the initiative of local schools and areas. I would like to briefly summarize two before turning in the next section to a detailed review of the School Cluster Initiative.

(1) School Finance. Under the socialist government schools were not allowed to request contributions from parents. An early move was to liberalize the conditions relating to school requests for fees to subsidize facilities such as pencils, chalk, electricity, and related items. Schools in more affluent areas readily took advantage of this opportunity leading to a significant

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increase in their revenues, but schools in poorer areas did not have the will to make similar requests. Thus the liberalization of facilities fees widened the disparity among schools.

A subsequent measure has been to propose the establishment of School Development Societies which articulate a bond of mutual responsibility between schools and communities to provide each other with support. Schools, for their part, are encouraged to organize community events such as canal cleaning days or community fairs; communities are asked to contribute to the maintenace of schools and to the encouragement of children in their studies. In the context of rural Sri Lanka where communities tend to be tight-knit, these SDS's are often effective in mobilizing mutual effort; nevertheless, it would appear that the net result is to heighten rather than reduce the disparity between schools.

(2) Training of Principals in Dynamic Management. A complementary strategy for strengthening the quality of schools has been the inagauration of programs to train principals in mangement skills. The main thrust of these programs is to urge principals to take greater initiative in developing the instructional programs of their schools through developing school-based curricular goals and leading discussions among teachers about effective teaching methods. This program would appear to have had some impact, but it is in schools where principals are also influenced by other reforms such as clusters that training makes the greatest difference in schools.

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The Cluster as an Intermediate Reform

A widespread problem in rural education is the isolation of individual schools and teachers. While schools may be no more than a few miles apart, it takes considerable time and energy for the members of neighboring schools to visit each other, especially if there is no cause. Yet, because these members do not visit each other, they fail to share experiences and resources.

One of the reasons for this isolation is the structure of the administrative system for providing resources and services. The structure typically is an elaboration of an earlier system created by colonial authorities for school "inspection." The inspection system tends to concentrate most officials in comfortable regional capitals with a small number posted to circuit offices from which they look after upwards of 100 schools. The colonial structure was not designed for the delivery of resources/services to schools nor for promoting contact between schools.

Through the early years of post-colonial development, this system was not revised. But in recent year it has been recognized that a different mechanism might be required to provide instructional and management support for isolated schools. In response to this need, over the last two decades several countries have hit on a common idea, that of linking several schools together in a mutually supportive network. In Latin America, these networks are usually referred to as nucleo, in India as complexes, in Papua New Guinea as zones, in the Philippines as School Learning Cells, and in most other countries as clusters.

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Communication and Resource-Sharing. The possibilities for lateral communication and resource-sharing opened up by clusters are depicted in Figure 1. With the cluster organization, a school is brought into direct association with several other neighboring schools.

Figure 1: A Common School Cluster Model.
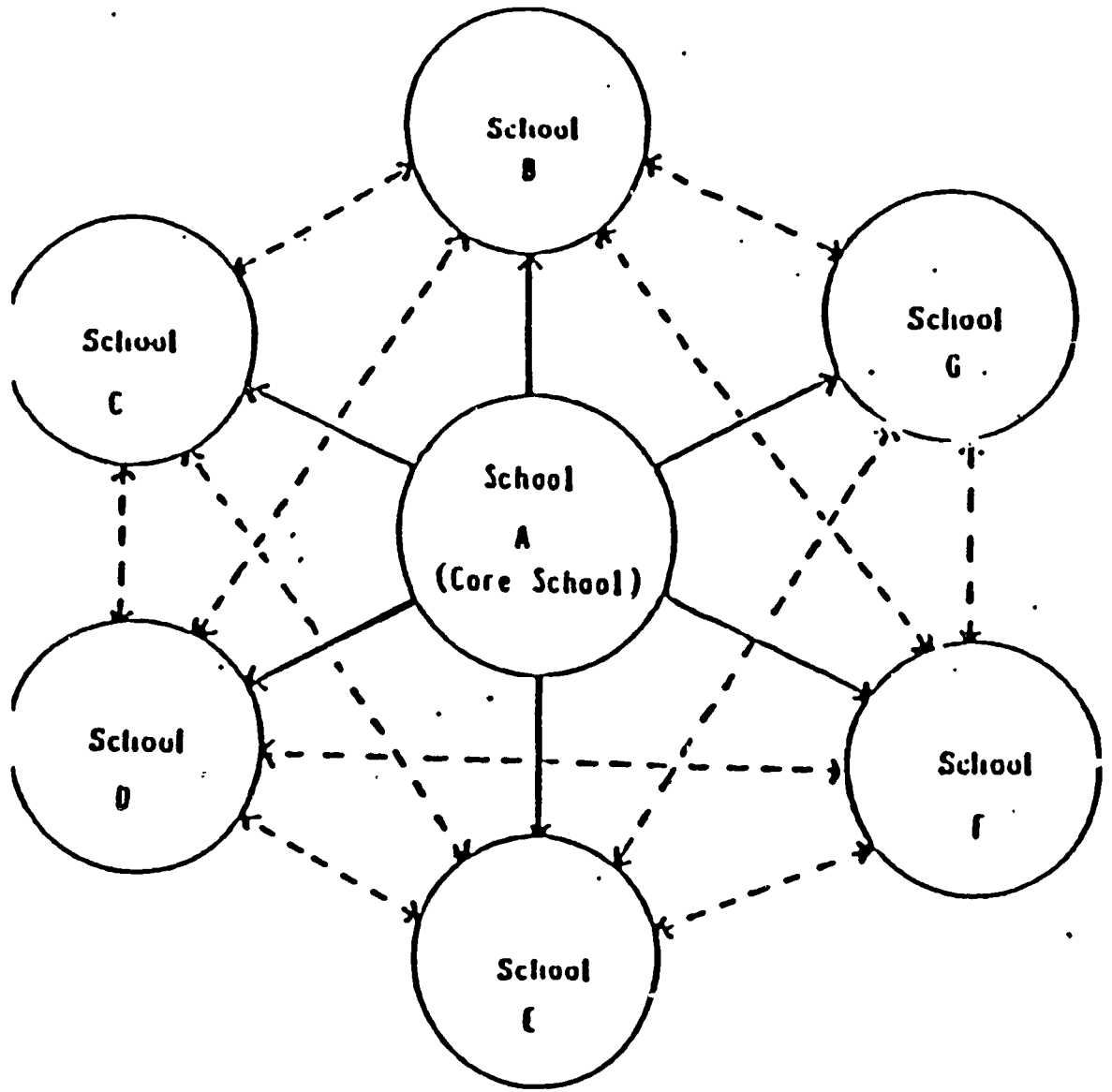
-------- coordinating linkage

———— supervisory/controlling linkage

Relation to Authority. The primary goal of clusters is to increase lateral communication and resource-sharing. In most of the national examples, it is assumed that this will occur simply through the joining of several schools in a clearly designated network. The initial Sri Lankan clusters shared this assumption. However, observers concluded that the active participation of district level officials could help to activate cluster networks, and thus a division-level office was proposed. This office was to be formed through eleminating the district-level positions of circuit officers and creating new (local) division offices each staffed by up to three officers who formerly were assigned to the regional office.

The modification of backing up clusters with a division office is unique to Sri Lanka, and as we will indicated below has profound implications. The difference between a conventional cluster without a division office and a modified cluster supported by this special office is illustrated in Table 2.

Whereas a single circuit officer who usually had a desk in one of the schools in the district was responsible for fifty schools, now three division officers with desks in local areas become collaborators with 10 cluster committees, each consisting of 10-

(Table 2 about here)

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Table 2

Span of Control is Reduced with Division Office

SPAN OF CONTROL

MODEL A

District Office	20 officers	
Circuit Offices	10 offices with 1 officer in each	1 office to 50 schools
Schools	500 or 50 per circuit officer	

SPAN OF CONTROL

MODEL B

District Office	15 officers	
Division office	5 with 3 officers in each	1 office to 10 clusters
Cluster	10 clusters under each division office with a cluster principal as the chief liason	1 core cluster principal to 10 schools

5 schools. While the division office is responsible for approx-
imately twice as many schools as the old circuit office, the
division office has more staff, is located in closer proximity to
schools, and has only ten cluster committees as the primary point
of contact.

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Relation to Community. In most of the national experiments with clusters, increased involvement of communities is included among the objectives. But this may not be realistic. In many of the clusters, athletic and cultural events come to be staged at the cluster level rather than at the level of individual schools. Where the schools joined in a cluster serve separate communities, parents may be happy to help their local school but reluctant to help the cluster or participate in these cross-community events. This reluctance is likely to be especially strong where the communities do not share a common religion or race. In contrast, if the several schools joined in a cluster serve a common community, it is more likely that a cluster may enhance community involvement.

The cluster can be referred to as an **intermediate reform** because it both centralizes (the focus of communities on schools) and decentralizes (the concentration of the centrally provided system of administrative support).

Types of Schools. In most countries where the cluster has been attempted, the cluster schools are of a common level, usually for primary education; in these cases, the core school may be given a special resource center to facilitate cluster-wide activities. In the case of Swat in Pakistan's North-West Frontier, a cluster is composed of several primary schools radiating from a single middle school. In Sri Lanka, a Type I School, that is, a full or multi-grade school of high quality, is usually designated as the

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core school, and with it are associated about ten lesser schools, most of which have only the primary level grades.

Cost. An important consideration in cluster formation is the amount it costs. In some of the national experiences, for example Thailand, the establishment of clusters is associated with considerable added cost for new resources and buildings. In Sri Lanka, the main additional allocation is the salary of the core principal. Concerning facilities, the main objective is to make better use of existing resources, especially under-utilized resources at the core school through allowing other schools to make use of these. However, the introduction of clusters may lead to the re-assignment and re-allocation of existing resources between schools. Especially, where these affect people, there may be resistance:

a) at the school level, the rationalization of facilities so that some grades or facilities are transferred between schools may evoke resistance from those who feel they lose more than they gain. For example, a teacher may not wish to teach to be reassigned to a new school in the cluster or a parent may not be anxious to have her child walk the extra distance to the new location where all 7th grade education now takes place.

b) at the bureacratic level, in the case of the Sri Lankan cluster, some middle-level officials are reassigned from an office in an urban setting to newly created office in a rural settings; these reassignments may be resisted.

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In sum, the cluster is a simple structural rearrangement that has profound potential for promoting communication and resource sharing and hence the betterment of education. The reform is particularly attractive in view of its low cost. Indeed, the reform largely draws on existing resources. Thus, if the reform promotes any impovements it automatically achieves cost-effectiveness.

The Spread of Clusters in SL

Several structural variations can be elaborated from the core cluster concept. The Sri Lankan educators, building on past experience as well as special characteristics of their school system, were able to develop two distinctive models that have certain advantages over those attempted in other societies:

(a) the conventional Sri Lanka cluster combines the main features of other systems while also including in each cluster an already established and functioning lead (Type I) school which has a substantial surplus of mobilizable resources; and

(b) the modified cluster which, along with the advantages of the conventional cluster, includes a closer and more diversified link with the central administrative system.

The Sri Lankan Ministry of Education began introducing the conventional clusters on a pilot basis in 1981 and then expanded their establishment in 1984 to four districts; the first modified clusters were started soon after. By 1987 when the field work to be reported below was conducted, approximately one quarter of all

schools in the Southern half of Sri Lanka had been included in clusters. From 1988, it was decided to incorporate all schools in clusters.

Prior to the Ministry of Education's decision to extend the reform to all schools, HIID-Bridges was invited to examine their impact. Through discussions with counterparts, the following research questions were identified:

1) Has the cluster enhanced communication and resource sharing between schools and with the bureaucracy?

2) Has the cluster led to improvements in the operation of schools?

3) Has the cluster led to improvements in the outputs of schools.

There are two possible approaches to answering these questions: (1) Perhaps the most desirable is to see whether the introduction of clusters to a group of schools leads to observed improvements in those schools over a period of time. Unfortunately the time is still too brief and the baseline data-collection was spotty, so we cannot rely extensively on this approach.

(2) The second approach involves a rigorous comparison of a groups of schools organized in clusters with a similar group not organized in clusters. Most of the analysis below will rely on this second approach, sometimes called cross-sectional analysis. However, we hope later to supplement the cross-sectional analysis with historical data for some of the cluster schools.

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For the field work a stratified random sample of 275 schools was drawn from 6 districts in the Southern half of the country. The schools were divided into six groups for the analysis:

rural non-cluster schools

rural conventional cluster schools

rural modified cluster schools

urban non-cluster schools

urban conventional cluster schools

urban modified cluster schools

Our primary attention will be on the first three groups, And especially on the weaker schools in these groups—that is, the Type II and Type III. This is appropriate, as the cluster reform is specifically designed for the benefit of these schools.

Another reason, incidentally, for focusing on the first three groups, is that clusters are still relatively unusual in urban areas—and our sample for these areas is small. So in considerable degree, our findings for the urban cluster schools may be as much a reflection of those particular schools as of the reforms they have experienced.

Clusters and Communication

Research on third world schools clearly demonstrates a relation between the isolation of schools and the quality of their performance. Hence, one of the most compelling reasons for the creation of clusters is to enhance the level of communication between schools and from schools to the supporting administrative

structure. The structure of both the conventional and modified

clusters involves the establishment of cluster-wide committees at

the level of principals and among various teacher groups as one

means to enhancing communication. To examine the impact of this

structure, we asked principals several questions about the fre-

quency of their school's contact with neighoring schools. The

answers of the principals were combined in an index of lateral

communication.

Table 3
Schools in Modified Clusters Report Greater Communication than Other Schools

| | RURAL | | | URBAN | | |
	Non-Cluster	Classic Cluster	Modified Cluster	Non-Cluster	Classic Cluster	Modified Cluster
Communication with Neighboring Schools*	5.8	7.4	9.8	5.8	8.6	10.5
Communication to Higher Levels**	7.5	7.5	12.0	11.0	11.0	14.2
Communication from Higher Levels***	8.7	8.8	11.2	11.5	12.4	13.6

* Mean of indicator which summarizes the frequency of
  communication between schools; possible range, 0 to 12.

** Mean of indicator of frequency of communication from the school
  school to the Division Office or Ministry of Education;
  possible range from 0 to 20.

*** Mean of indicator of communication from higher
  administrative levels to the school; possible range
  from 0 to 20.

As indicated in the first row of Table 3, the incidence of lateral communication is higher in both the conventional and modified cluster schools than in the non-cluster schools. These differences hold both for the rural and urban groups.

In that most new curricular ideas (including texts and teaching materials) as well as other educational resources in Sri Lanka are supplied by the Ministry of Education, it is also important for schools to have open lines of communication with the official administrative system. The traditional circuit office was distant from most schools, whereas the division office characteristic of the modified cluster is more proximate. Moreover, the division office has more staff. Due both to closer proximity and the improved staffing ratio, it would be expected that modified clusters would maintain better communication with the administrative system. As above, indexes of the frequency of a school's communication to and from higher levels in the administrative system were developed. For both indicators, as reported in Table 3, the modified cluster schools manifest much higher communication levels than the non-cluster or classic cluster schools. These differences are evident both for the rural and urban groups.

It is possible that the core schools of clusters, being the official window for cluster communication, might dominate external communication; if so, the average scores we have computed across schools might not reflect the communication level of the other cluster schools. To examine this possibility, we re-computed the

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communication scores, leaving out all Type I schools. As illustra-
ted in Table 4, the pattern for this table is virtually identical
with Table 3.

Table 4 :
Rural Type II and III Schools in
Modified Clusters Report Greater
Communication than Other Rural Schools

	RURAL Non-Cluster	Classic Cluster	Modified Cluster	URBAN Non-Cluster	Classic Cluster	Modified Cluster
Communication with * Neighboring Schools	5.6	7.1	5.9	6.1	9.0	12.0
Communication to ** Higher Levels	7.4	7.3	11.8	11.4	11.5	15.0
Communication from *** Higher Levels	8.6	8.6	10.8	11.3	13.5	14.0

In other words, even the peripheral schools of both types of clusters have greater communication with each other and the administrative system than do non-cluster schools. Concerning communication with the administrative system, the peripheral schools of the modified clusters stand out. Thus we can conclude that the cluster reform has a profound impact in reducing the isolation of schools.

Provision of Resources From MOE

For the acquisition of resources from the administrative structure, schools with the modified cluster arrangement, by virtue of their superior communication with the administrative system, would appear to have an advantage over schools of both the class'c cluster and non-cluster groups. However, our comparisnn of the principal's reports concerning the timeliness of the delivery of educational resources does not indicate a significant difference by cluster group. About an equal proportion of schools in each group say the MOE delivers resources such as te tbooks, teaching materials, chalk, and other resources on time. While the modified clu ter may lead to improvements in the content of vert'cal communications, this is not converted into outright favouritis in tne provision of supplies. Perhaps the MU str.ves to treat all schools on an equal basis, regardless of their status in terms of the reform initiatives.

Clusters and Training, Resource·Sharin

A special concern of the Sri Lankan cluster reform is to promote the shar ng of resources etween the more and the less advantaged s hools. These resources can broadly be grouped into two cate_ories: human and material.

The main mechanisms for sharing human resources include inter-school teacher seminars, the temporary assignment of teachers to cover for others who are sick or on leave, and the permanent transfer of teachers between cluster schools. Our research was only able to obtain information on the first of these mechanisms. Accordin to the principal f Type II and Type III schools, such seminars are held 3.8 times a year in rural non-cluster schools, 4. times in rural classic cluster schools, and 8. i es in rural modified cluster schools. The pattern is not as stable for urban schools, but there again it would appear that cluster schools have more such seminars than do non-cluster schools.

Concerning resources, the pri cipal of each school were asked if their school had been loaned or provided any of the following resources from other schools in their area: teachers, visual aids, equipment, materials, stationery, or textbooks. An index was developed to reflect the volume and variety of resources each school reported.

Table 5

Rural Type II and II Schools in Modified Clusters Report Greater Resource Sharing and Inter-school Teacher Seminar Participation

	RURAL			URBAN		
	Non-Cluster	Classic Cluster	Modified Cluster	Non-Cluster	Classic Cluster	Modified Cluster
Resource Sharing (1)	1.8	3.1	3.8	0.0	1.0	1.0
Inter-school Teacher Seminars (2)	3.8	4.8	8.2	2.9	12.0	3.0

(1) Measure of Resource Augmentation; range of 1 to 13

(2) Mean number of inter-school teaching seminars in which school's teachers participate in a year.

Again, as can be seen in Table 5, rural cluster schools report receiving more resources than non-cluster schools, and the modified cluster schools report that they are the largest beneficiaries. Among the urban schools, those in clusters also report receiving more resources than neighboring schools than do urban non-cluster schools, though here the overall volume is more modest.

Innovations in School Procedures

While the discussion above focus on changes in the relations between schools, another area of potential change related to the cluster reform is in the internal practices of schools. In 1984, at the same time that the Ministry of Education proposed the expansion of the cluster reform, it also distributed a circular to all of the che schools in Sri Lanka inviting each school to attempt one or more projects of self-improvement. The Ministry's circular identified seven broad areas where self-improvement might be attempted, and for each of these area outlined several possible projects that schools might attempt. Following the distribution of the circular, the MOE offered assistance to schools in the realization of these projects.

table 6

Table

Rural Type II and II Schools in
Modified Clusters Report Greater Proportions of
Innovations than Other Rural Type II and II Schools

	RURAL Non-Cluster	Classic Cluster	Modified Cluster	URBAN Non-Cluster	Classic Cluster	Modified Cluster
Student Conditions (1)	0.16	0.16	0.28	0.21	0.56	nd
Teacher Development (2)	0.11	0.13	0.15	0.21	0.56	nd
Materials Provisions (3)	0.10	0.03	0.19	0.21	0.25	nd
Building Improvements (4)	0.18	0.11	0.28	0.21	0.33	nd
Cocurricular Facilities (5)	0.13	0.09	0.15	0.16	0.63	nd
Guidance Practices (6)	0.04	0.02	0.07	0.10	0.50	nd
School-Community Relations (7)	0.21	0.22	0.18	0.10	0.50	nd

(1) Mean proportion of 9 suggested improvements in student
conditions reported to have been implemented.

(2) Mean proportion of 8 suggested measures to encourage teacher
development reported to have been taken.

(3) Mean proportio of 2 suggested provisions for teaching
materials reported to have been implemented.

(4) Mean proportion of 3 suggested improvements in buildings or
facilities reported as planned or completed.

(5) Mean proportion of 4 suggested improvements in cocurricular
facilities reported to have been made.

(6) Mean proportion of 2 suggested student guidance practices
reported to have been instituted.

(7) Mean proportion of 2 suggested means for encouraging school-
community relations reported to have been implemented.

As might be expected, those schools that were most intimate-
ly associated with the MOE's cluster reforms were also those that
showed greatest interest in attempting the MOE's projects. In
the survey, we listed the various groups of projects that had
been outlined in the MOE's circular and asked each school to
indicate how many they had attempted. For some areas such as
student welfare, the MOE outlined project in as many as nine
distinct areas: participation, retention, drop-outs, absenteeism,
tardiness, discipline, achievement, nutrition, and health check-
ups. In other areas, there was less detail. Table 6 reports the
average proportion of projects attempted out of those suggested
for the Type II and III schools of each group. Among rural
schools, the modified cluster schools reported a higher average
proportion for all of the areas except the improvement of school
community relation_; in that area, all three rural groups reported
similar scores. There is insufficient information to draw conclu-
sions with respect to the urban schools.

Cluster and School Management Practice

The differential response of the several school groups to the
MOE's circular on innovations provides important background for
considering the management practices in the respective schools.
It is reasonable to assume that the schools of the various groups
had virtually identical managment practices prior to the initiation
of the management reforms. But it is clear that some of these
schools have developed closer relations to the MOE and have been

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more willing to attempt innovations. This difference in innovativeness appears to show up in the differential responsiveness of schools in the respective groups to the MOE's urging of new management practices.

Cluster schools evidence a consistent pattern of implementing more advanced practices in such areas as participatory decision-making, instructional management, planning, curriculum development, and student welfare (i.e., the provision of remedial instruction and make-up classes for children who are sick or otherwise out of school). Not all of these areas are equally impacted; for example, the impact on school-based planning and student welfare seems more modest, and this may be because these areas are given less attention in cluster-wide discus. ns.

Another area of interest is the relation of schools to their community. The cluster reforms implicitly assume that schools should relate to a broader community than the immediate cachment where they are located, whereas the parents of the respective cachments often have different views. The full report of our research discusses how this seemingly contradictory pull is accomodated. One observation is that clusters do not seem to make a consistent contribution to school community relations.

The Cluster Reform and the Effectiveness of Schools

It should be apparent by this point that the cluster reform, especially with the later modifications, has been successful in reducing the isolation of schools, enhancing the level of resour-

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ces that are shared between schools, and altering management practices at the school level. These changes in the inputs to schools and the practices used in mobilizing these resources should lead, over the long run, to improvements in the quality of the schools. As these reforms have only been in place for a few years, and for one or two years in most of the schools of our sample, it may be premature to consider their impact in such areas as internal efficiency or student learning. However, it is certainly reasonable to ask whether the schools that have received these new inputs show improvements in their daily operations.

Table 7
Principal's of Rural Type II and III schools in Modified Clusters Rate their Schools Higher than Principals of other Rural Type II and III schools.

| | RURAL SCHOOLS, TYPE II and III | | |
	Not in Clusters	Classic Clusters	Modified Clusters
Percent who regard their school as 'among the best' or 'better than average' in Academic Achievement' (Nationally)	22.1	13.5	50.8
Percent who feel their school has potential to be among the 'best' or better than average' (Nationally)	14.2	6.9	37.1
Percent who regard their school as 'among the best' or 'better than average' in Cocurricular Activities (Nationally)	19.6	9.4	37.1
Percent who regard their school as 'among the best' or 'better than average' in Helping the Community (Nationally)	35.9	25.5	46.3

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The evidence we have, reported in Table 7 indicates the principals of cluster schools think their schools are more effective! But in terms of school outputs, the information we have collected thus far is insufficient. As indicated in Table 8, when we focus on Type II and III schools, those in the modified clusters appear to have higher student attendence rates, the student appear to like the schools more, the rates of student punishment are lower, and repetition rates also may be lower. However, concerning both drop-out and repetition rates, our school level computations are so contaminated by patterns of student movement that we require further investigation before drawing firm conclusions. In the future, we expect to add additional information on the performance of the schools.

Table 8
School Outcomes in Rural Type II and III Schools

	Not in Clusters	Classic Clusters	Modified Clusters
Daily Attendance Reported as 90% or above	32.6	30.1	46.8
Percent of students estimated to like school	75	79	83
Percent of students disciplined in a week	3.3	5.9	1.6
Repetition Rate	8.6	9.0	12.0
Dropout Rate	6.3	5.3	5.9

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Conclusion

Five performance criteria have been identified that guide the decisions of educational leaders in the development of policies options, whether towards centralization/decentralization or other options. To these criteria might be added another consideration, the liklihood that a particular policy can be implemented in the intended manner and with the expected results. Our discussion of decentralizing options including new information from Sri Lanka suggests the following conclusions:

1) Privatization of schools, especially extending to full financial autonomy, is a difficult policy to introduce for schools that are already established and that have become accustomed to public subsidies. Private status may be more acceptable to those seeking to gain permission to establish new schools serving unmet needs such as instruction in a foreign language medium or certain technical skills.

2) Privatization of a portion of the finance of schools generally results in increases in the inequality of opportunity tor access to quality education.

3) While privatization of schools may not be attractive, privatization of certain services and resources may offer promise for promoting efficiency and other performance criteria. Moreover, in most economies there are private organizations capable of providing certain of the services and resources required by schools.

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4) Decentralizing reforms directly affecting teacher pay, leave, and/or transfer procedures may encounter resistance, especially where teachers are organized in unions.

5) On the other hand, decentralizing reforms directed at the placement of new hires are more likely to gain acceptance and to achieve desired results.

6) Decentralizing reforms that move supervision closer to schools, such as the formation of a division office as in Sri Lanka's modified cluster, have promise for improving the quality of education especially in schools that are relatively isolated.

7) Additionally the Sri Lanka cluster illustrates the possibility of mobilizing underutilized resources (i.e. the equipment, facilities, and expertise in Type I schools) to improve the quality of weak schools, at no new cost to the system.

8) Changes in the organization of the distribution of other resources/services such as textbook distribution and in-service teacher training can be combined with the cluster reform without any measurable decline in efficiency.

9) It is questionable whether the full decentralization of the process of student evaluation will add to the quality or efficiency of education, though some sharing of this function may be beneficial.

10) The impact of decentralizing reforms on values education has not been evaluated, but such an evaluation would have to give careful consideration to who's values are being considering. Decentralized systems place greater emphasis on local values

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while centralized systems stress the values of the state.

11) There is little research on the decentralizing options with respect to such resources/services as the production and utilization of textbooks, materials, and buildings; but this all seem like areas of considerable promise in view of recent advances in production technology.

12) An important ingredient in the implementation of decentralizing reforms is the provision of measure to promote psychological decentralization, whether through formal training programs or extensive grass-roots communication.