Chapter 8: Raising Enrolment Rates and Restructuring

If authorities wish to have larger schools without expanding catchment areas, they can achieve their goal in several ways. The main strategies are (a) to raise enrolment rates, (b) to construct 'straight-through' schools, and (c) to rationalise systems to avoid duplication.

(a) Raising Enrolment Rates

In many Third World countries, the problems of sparse population are compounded by low enrolment rates: the population has enough children to support a school, but many children do not enrol. In these cases, schools can be enlarged by increasing enrolment rates.

Table 3 illustrates this point by showing the relationships between population density, catchment areas and enrolment rates. The table has been drawn up for the primary level, but it would be easy to draw up a similar one for the secondary level.

The four columns in the table may be explained as follows:

1. The first shows population density. It starts at just 10 people per sq. km., and increases to 100 people per sq. km.. The table can therefore be used both in different areas of a country and in specific areas that expect to have population changes.
2. The second column shows the number of people within a single school's catchment area. In this example, the catchment area has been defined as a circle with a radius of 5 km.. This circle has an area of 75.88 sq. km.. (However some children still have to travel more than 5 km., because roads and paths

cannot always go straight to the school from the home of every child.)

3. The third column shows the percentage of the total population that is in the official primary school age range. In this case the age range has been set at 6 — 11, and the percentage has been determined from census data.
4. The final column shows the size of school that can be achieved at different enrolment rates under the previous assumptions. The first row indicates that in an area with a density of 10 people per sq. km., an enrolment rate of 50% will give the school only 70 pupils. An increase of enrolment rate to 60% will give it 84 pupils, an increase to 70% will give it 98 pupils, and so on.

Table 3: Enrolment Rates and School Size

(1) Population per square kilometre	(2) Population in 5 km radius (col.1 × 78.55)	(3) Population aged 6 - 11 (17.8% of Col.2)	(4) Enrolments given different participation rates (% of Col.3)					
			50%	60%	70%	80%	90%	100%
10	786	140	70	84	98	112	126	140
20	1,571	280	140	168	196	224	252	280
30	2,357	420	210	252	294	336	378	420
40	3,142	559	280	335	391	447	503	559
50	3,928	699	350	419	489	559	629	699
60	4,713	839	420	503	587	671	755	839
70	5,499	979	490	587	685	783	881	979
80	6,284	1,118	559	671	783	894	1,006	1,118
90	7,070	1,258	629	755	881	1,006	1,132	1,258
100	7,855	1,398	699	839	979	1,118	1,258	1,398

It follows from this table that if the density of population and the catchment area are fixed, the authorities can increase the size of schools by increasing the enrolment rate. The main ways to do this are:

* *Increasing initial enrolments.* This can be done by launching a special campaign, perhaps reinforced by fines and a compulsory schooling law.
* *Reducing drop-out rates.* Measures can focus on:
  — in-school strategies, such as improvement of the quality of teaching, the quality of facilities, school nutrition programmes, etc., and

  - out-of-school strategies, such as economic measures to make primary schooling desirable, improving roads to make it easier for pupils to come to school, etc.
* *Encouraging older pupils to attend school.* Under the regulations indicated here, primary education is supposed only to serve the 6-11 age group. However, the schools can be expanded if they admit children:
  - who did not enrol at age 6, and so are in danger of having missed their chance,
  - who dropped out of school but now want to drop back in, and
  - who want to repeat classes.

Two further points should also be made in connection with the table:

- While fixed size catchment areas are useful as initial guidelines, they should not be enforced too rigidly. Mountains, valleys, forests and rivers sometimes make it impossible for children to attend schools that are a short distance away on the map. Also, roads and other lines of communication do not always go directly to the nearest schools. Sometimes it is easier for children to travel to relatively distant schools.
- It is essential to forecast population changes. If the population is expected to grow, schools may also be expected to grow. But if the population is expected to decline, schools may be expected to decline.

(b) Straight-Through Schools

Larger schools may also be created by combining primary and secondary sections. In some systems the combined institution is called a 'straight-through' school. In others it is called an all-through, area or central school.

Advantages

* In this system, staff are assigned to the institution as a whole, and may used flexibly for any class. Some staff can specialise, e.g. in music from Grades 1 to 10 or science from Grades 4 to

10. Others can integrate studies within a single grade, as in the typical primary school classroom.

* The school becomes large enough to justify investment in more specialised facilities, e.g. for sports and science.
* Staff can watch the development of children over a long period of time, and the pupils have a stronger sense of continuity.
* Pupils often find the transition from primary to secondary school emotionally exhausting. It is avoided in a straight-through school.
* The group of pupils with whom an individual child can interact is larger. Thus the atmosphere can broaden a child's horizons. It can also be more competitive.
* Staff have more colleagues with whom to discuss professional matters.
* Community support is concentrated on one institution, not two.
* The pupils who in other systems would be at the top of primary school and the bottom of secondary school can share library books and other materials appropriate to their age group.

Disadvantages

* Secondary school teachers normally have higher qualifications than primary school ones. Parents, administrators and others may consider staff with primary school qualifications unsuited for work in the secondary grades; and teachers with secondary school qualifications may be too scarce to be 'wasted' on primary grades.
* In the normal system, pupils who have become unpopular with specific primary school teachers gain a 'new start' when they move to secondary school. In a straight-through school this is not possible.
* In some systems, secondary teachers have higher salary scales than primary ones. In these systems, straight-through schools require new, common salary scales. On the common scale,
  - — teachers who would otherwise be in primary schools would probably receive more (which would make those teachers happy but raise the cost to the government), while

— teachers who would otherwise be in secondary schools would probably receive less (which would reduce the government's bills but make the teachers unwilling to work in straight-through schools).

A Central School in Australia

Schools that in other countries are called 'straight-through' schools are called 'central' schools in Australia. This box illustrates their advantages by reference to one example.

Wilcannia Central School is situated in a remote part of New South Wales. It serves a total population of 1,000, and in 1986 had 200 pupils. The infant and primary pupils numbered 130, and the secondary ones 70. Had they not been combined together, therefore, the separate primary and secondary schools would have been rather small.

The central school is large enough to employ 18 teachers and four ancillary staff, and uses some teachers for all grades. For example, in order to coordinate and emphasise science at all levels, the science/agriculture teacher works with every class.

Because of its size, the school is also able to justify investment in expensive facilities. It has a central library, specialist art, home-science, industrial arts and science rooms, and a multi-purpose gymnasium-theatre complex. Total construction costs were A$3.8 million.

Additional benefits are that:

- *individual pupils have contact with a wider range of other pupils,*
- *staff have more colleagues with whom to interact, and*
- *when staff have to be absent, their colleagues are more easily able to cover for them.*

(c) Rationalisation

The authorities may be able to increase school size by rationalising the school network. When two or more schools serve a single catchment area, they have to divide the population between them.

Rationalisation of Schools: An Irish Example

County Sligo is in the northern part of the Republic of Ireland. Because of both emigration and declining birth rates, in recent decades the population has fallen sharply. In the early 1970s it was clear that enrolments in many schools had declined to an uneconomic level. Hallak & McCabe (1973) were invited to propose plans for rationalisation.

The researchers began by examining the situation on a school-by-school basis. The three initial parts of their study required assessment of:

i) current enrolments,
ii) population projections and thus future enrolments, and
iii) the feasibility of pupils in very small schools being concentrated in a few larger schools.

At the primary level, they proposed two alternative plans. The first was rather drastic. It took account of a national aim to phase out single teacher schools, and envisaged that 54 of the 107 schools would be closed. The map of this proposal is reproduced on page 77.

The second proposal was less drastic. It called for retention of at least some single teacher schools, but still envisaged closure of 40 schools.

The researchers then calculated the costs that could be saved. The main savings were in salaries. But although the first proposal saved more salaries, it required greater expenditure on daily transport and ultimately would have saved less than the second proposal.

However, the researchers also observed that the final decision might reflect neither (or a combination) of these proposals. They recognised the very important social role of the school, and noted that the final decision could only be reached after negotiation between the authorities and the communities concerned.

In the example in Table 3 (page 71), an area with a population density of 10 people per square km. and an enrolment rate of 50% would only have 70 primary school children. In ideal circumstances these should be concentrated in one school. But sometimes, for historical and other reasons, they are divided into two schools.

Three common factors create a need for rationalisation:

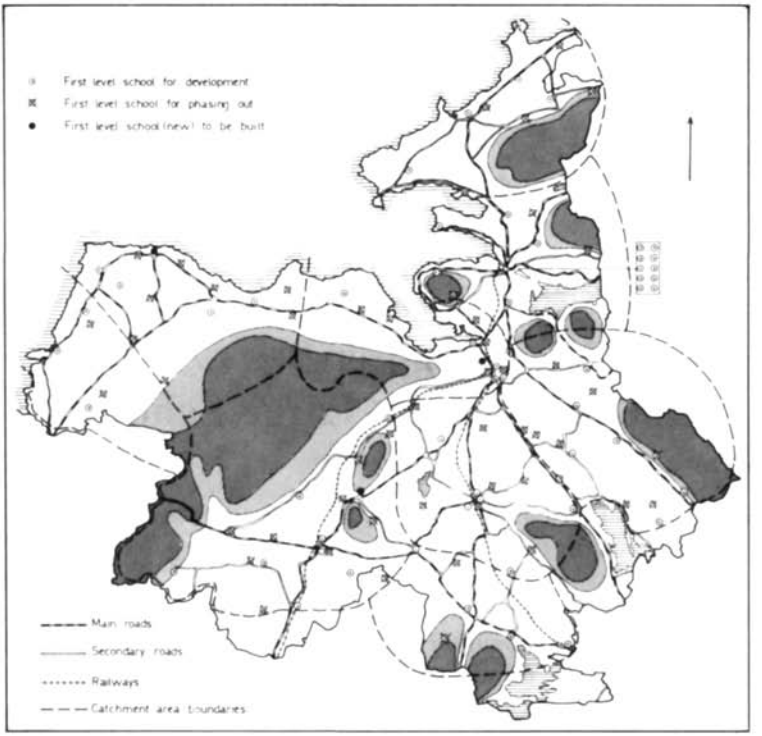
* because populations have declined, areas which formerly had enough children to fill two or more schools can no longer do so,
* separate schools have been established by different religious, language or racial groups in order to provide education with a particular bias and to promote their own ideologies, and
* public education has been considered poor in quality, and better quality private schools have been established for those who can afford it.

Four essential instruments for rationalisation are:

— accurate statistics on present enrolments and staffing,
— projections on future enrolments and staffing,
— detailed school maps, and
— estimates of both recurrent and capital costs of different rationalisation options.

The International Institute for Educational Planning (IIEP) has conducted extensive work on rationalisation and school mapping in a wide range of countries. For discussion of techniques, readers are referred to the items listed in the Further Reading section on page 86, and to the bibliographies in those book themselves.

Rationalisation is rarely easy, however. As pointed out in Chapter 1, schools serve important social functions, and communities are never happy for their schools to be closed. Threats of school closure usually create considerable political opposition, and rationalisation schemes are always highly controversial.



[Reproduced in revised form from Hallak & McCabe (1973:54-5), with permission from the IIEP]

School Maps are an essential instrument for rationalisation studies. This map shows one option in a proposed rationalisation of primary schools in County Sligo, Ireland.