

Part I:

A Framework for Analysis

Chapter 1: Models for Multiple-Shift Schooling

International survey shows that there are many different models for multiple-shift schooling. This chapter outlines the most common models in order to provide a framework for subsequent analysis.

1. 'End-on' Shifts

Most multiple-shift systems are of the 'end-on' variety. This means that one group of pupils leaves the school before the next group arrives. This book is mainly concerned with shift systems of this type.

In a *double-shift system*, the first group of pupils comes early in the morning but leaves at mid-day; and the second group arrives at mid-day but leaves in the late afternoon. In Malaysia, for example, a common pattern is:

1st Shift: 7.40 am to 12.40 pm
2nd Shift: 1.00 pm to 6.00 pm.

In a *triple-shift system*, three groups of pupils share one set of buildings and facilities. The pattern in some Zambian schools is:

1st Shift: 6.45 am to 10.40 am
2nd Shift: 10.45 am to 2.10 pm
3rd Shift: 2.15 pm to 5.45 pm.

Because this type of triple-shift can only operate with a very short school day, in most countries it is only an emergency measure.

2. Overlapping Shifts

Alternatively, shifts may overlap. Students arrive and leave at different times, but at some point are on the school compound together.

The box below gives an example of a simple overlapping shift system. It enabled the school to increase its enrolment and to use its buildings more efficiently while retaining the atmosphere of a single-shift school.

Chapter 6 (pages 70–73) discusses a more complicated example: a school in the Philippines which managed even to have *quadruple* shifts. The school timetable is complex, but the example shows that classrooms can be occupied non-stop from 7.00 am to 7.40 pm.

Overlapping Shifts: An Indonesian Example

A few years ago, Sabelas Maret Secondary School expanded its enrolment by 25% while still maintaining the atmosphere of a full-day school. It achieved this with an overlapping shift system.

In the old system, the school week had nine lessons a day, Monday to Friday. Even when classrooms were used all the time, they only accommodated 45 lessons per week. The overlapping shift system increased the school day to 11 lessons, allowing the classrooms to accommodate 55 lessons a week. This represented a 22.2% increase in room utilisation. Space for the students when they were all on the compound together was found by using laboratories, workshops, the library and sports fields (for physical education).

The operation of the shifts was as follows:

Shift A: 9 periods per day, 8.15 am to 3.10 pm, and

Shift B: 9 periods per day, 9.35 am to 4.30 pm.

Both shifts had the same lunch hour, from 12.10 to 1.10 pm. This helped students of each shift to meet each other and to feel part of a single institution. The system required efficient timetabling, but did not cause major problems.

3. Variations in the Length of School Week

The above models may be refined by adjusting the number of days each week that pupils attend school. In Hong Kong,

Single-shift schools have eight periods per day, Monday to Friday. They do not operate on Saturdays, so have 40 periods per week.

Double-shift schools have seven periods per day, Monday to Friday, plus six periods on alternate Saturdays. They have 76 periods every two weeks, or an average of 38 periods per week.

By using Saturday mornings, the double-shift schools provide almost the same total number of lessons. If they worked *every* Saturday instead of alternate Saturdays, double-shift schools could have even more lessons than single-shift schools. However, schooling on Saturday afternoons is unpopular in Hong Kong because government offices and many businesses work only in the mornings, and the afternoons are commonly set aside for family activities. Accordingly, the schools only operate on Saturday mornings. The afternoon session operates every afternoon from Monday to Friday, plus each *morning* on alternate Saturdays.

4. Different or Shared Teachers

Hong Kong primary schools have different teachers for morning and afternoon sessions. There is no shortage of teachers, and the government prohibits staff from working in both sessions because it is afraid that teachers will be tired and that quality will suffer. A similar policy is followed in Singapore, South Korea, and parts of Nigeria.

Other countries are less fortunate. Senegal for example is short of qualified teachers, and the authorities are keen for these limited human resources to be utilised as fully as possible. At least some staff themselves welcome opportunities to teach in more than one session, for they can increase their earnings through extra work.

5. One Set of Buildings for Two Levels of Education

Although in many systems classrooms accommodate e.g. one Grade 1 class in the morning and another Grade 1 class in the afternoon, this arrangement is not universal. In Bangladesh, for example, most double-shift primary schools teach Grades 1 and 2 in the morning and Grades 3, 4 and 5 in the afternoon.

The authorities in Puerto Rico have taken this idea even further. Some institutions accommodate elementary children in the morning and intermediate children in the afternoon. Other institutions accommodate intermediate children in the morning and high school children in the afternoon. Similar patterns are found in parts of Malaysia.

6. Day and Boarding Schools

Most multiple-shift schools are day institutions. The main objective of the multiple-shift system is to reduce costs, and the policy seems to go hand-in-hand with elimination of boarding in order to reduce costs further.

However, the two policies do not necessarily go together. Governments may find that they have to retain boarding schools in order to serve children from remote areas, but can still run the schools on a multiple-shift system. The schools cannot make savings on dormitories (unless they require some children to sleep at night and others to sleep in the day!), but they can make more intensive use of classrooms, laboratories, kitchens, football pitches, etc.. Boarding schools can organise timetables in a more flexible way because they are not constrained by the need for children to travel early to school or to be home by nightfall. Sarawak State of Malaysia is one region in which multiple-shift boarding schools are common.

7. Urban and Rural Systems

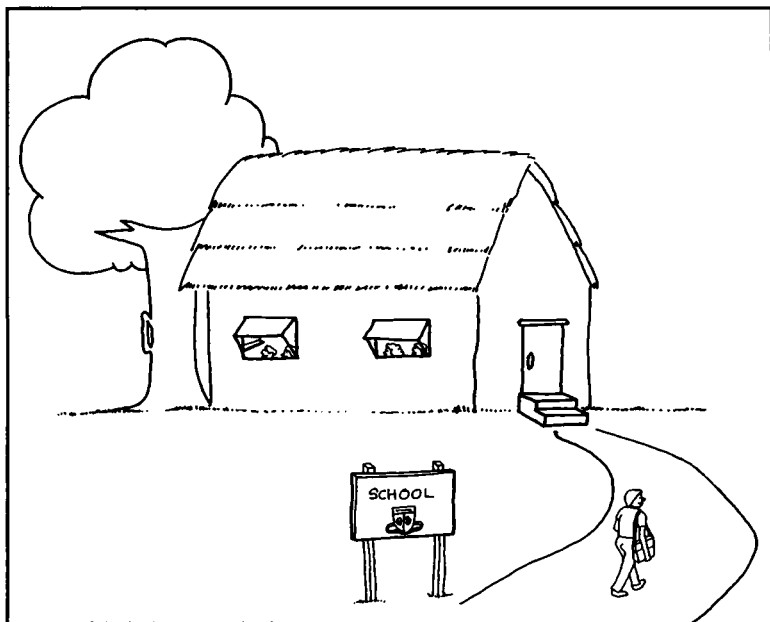
Multiple-shift systems are most common in urban areas. This is because:

- * Land is more expensive in towns. Administrators therefore try to use buildings and playgrounds as efficiently as possible.
- * Urban areas have high population densities. This makes it easy to find enough pupils to run extra shifts.

But multiple-shift systems may also be useful in rural areas:

- * Although land is less expensive, it is still important to minimise school costs.
- * Rural areas often suffer from teacher shortages. Systems in which staff teach more than one set of pupils can alleviate such shortages.

Only in the smallest villages is it impossible to find enough children for a double shift. Indeed, shift schools can operate with only one teacher. The teacher takes one group of children in the morning and another in the afternoon. This type of school may be found in remote parts of India, for example.



Although most multiple-shift schools are large, urban institutions, some are small and rural. The smallest type of multiple-shift school has only one teacher. He takes one group of pupils in the morning and the other in the afternoon.

8. Daily, Weekly and Monthly Rotation

Instead of alternating in mornings and afternoons, classes may alternate by day, week or month.

Daily rotation: One group of pupils attends school on Mondays, Wednesdays and Fridays while another attends on Tuesdays, Thursdays and Saturdays.

Weekly rotation: One group of pupils attends school in Weeks 1 and 3, while another group attends in Weeks 2 and 4.

Monthly rotation: One group of pupils attends school in January, March, May, etc., while another group attends in February, April, June, etc..

Variations of these models have been tried in the USA and in other countries, and in some cases operate successfully. They are uncommon, however, so have been excluded from the main focus of this book. They require radical reform of the education system and strong political will.

9. Classes for both Children and Adults

Schools may be used for children in the day-time and adults in the evening. The evening classes may be taught by school teachers or by outsiders. This model is common in both industrialised and less developed countries, and is a form of multiple-shift system. However, this book mainly focuses on provision for school-aged children. The model is only mentioned here in order to present a complete range.

10. Borrowed and Rented Premises

In some countries, private and community schools borrow or rent the premises of public schools when the public schools close for the day. This in effect becomes a double-shift system, for the buildings are used twice by two sets of pupils.

Two illustrations may be taken from Botswana and the Philippines. In both cases, public pressure for education has led to the establishment of self-help secondary schools. The institutions are called Community Junior Secondary Schools in Botswana, and

Barangay High Schools in the Philippines. In many cases the self-help institutions started life by using primary school buildings and teachers after the primary schools had closed for the day. For most institutions this was a short-term measure, but while it lasted was a form of double-shift system. Comparable institutions have also existed in Zimbabwe and Tanzania.