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ABSTRACT

An international seminar was held to identify the scope for improving the way in which the school day, school week, and school year are organized; to consider the advantages and disadvantages of different patterns of organization; and to examine the implications for buildings and more widely, for change. The participants, from 16 Organisation for Economic Cooperation and Development (OECD) member countries, included architects, teachers, and others professionally concerned with the design and use of educational buildings. There are a number of educational, economic, and social objectives of such changes, but the evaluation of local conditions was stressed. Also covered are the topics of possible types of change: increased use of premises during the school day and during nonuse periods, flexible timetables, networking, and year-round schools. A section on the implications of such changes summarizes the findings in the areas of planning, building, funding, and management of the educational buildings. Nine references are included. Appendices include an outline of the purposes and issues discussed during the seminar, a summary of the school year in 13 OECD countries, and a presentation on the building implications of "flexible timetabling." (LMS)

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TIME FOR A CHANGE?

Conclusions of a seminar on the Organisation of
School Time and its Implications for Buildings,
held in Ouranoupoli, Greece, 11-16 October 1987

The organisation of school time is a subject which concerns all of us at some period or another. The potential for changing traditional patterns was the theme of an international seminar, jointly organised by the Programme on Educational Building (PEB) and the Ministry of National Education and Religion, Greece, which took place from 11th to 16th October 1987. The participants, who came from sixteen OECD Member countries, included architects, teachers, and others professionally concerned with the design and use of educational buildings.

The seminar set out to idenfify the scope for improving the way in which the school day, school week and school year are organised; to consider the advantages and disadvantages of different patterns of organisation; and to examine the implications, both for buildings and more widely, of change. The present report, written by the Rapporteur, Richard Yelland of the PEB Secretariat, aims to draw together the main strands of discussion at the seminar, and to open the subject of school time to wider debate. The report should be regarded as a personal summary of the occasion and not the collective view of the participants or of the OECD.

CONTENTS

INTRODUCTION

Schools are expensive to build and expensive to run. The present stock of educational buildings represents, for most communities, the fruit of decades of investment and is perhaps their most valuable resource. Yet, even when ostensibly full, these buildings - be they nursery or primary schools, secondary schools or institutions of higher education - are all too frequently under-used. It is not uncommon for schools to be occupied for fewer than 180 days a year, and for fewer than six hours a day. There is on the face of it considerable scope for improving utilisation rates.

There are many ways in which to make more effective use of school buildings (1). Participants in the PEB seminar on "The Organisation of School Time and its Building Implications" looked in particular at the potential for making changes in the school day and the school year. They sought to identify the reasons for change, the constraints which might impede it, the scope for change and the implications of it. An extract from the background note which describes the aims of the seminar and the issues for discussion is reproduced as Annex A. Those who took part in it were especially qualified, as architects and administrators with a professional responsibility for buildings, to consider the likely effects of change on the way in which schools are planned, designed and managed and the financial consequences. But also at the seminar were teachers, inspectors and researchers who were able to look too at some of the educational and social issues.

The principal conclusion was that the subject is one which merits serious consideration and deserves wider debate by all those who would be affected by change. This report is a summary of the discussions at the seminar and is intended to serve as material in that debate.

The principal purpose of the debate must be to seek an answer to the question: "Is it possible, by changing the organisation of school time, to bring about either an educational improvement, or a better use of resources, or both". Change for the sake of change is not on the agenda: there must be tangible gain at some level or other.

THE PRESENT POSITION

Participants from sixteen OECD Member countries attended the seminar. Some details of the information that they brought with them about the organisation of the school year and the school day are given in Annex B. Overall, there is a good deal of common ground in the patterns of school time reported. Teaching is organised on a yearly basis, starting, except in Australia and New Zealand, in August or September and finishing in June or

July. All countries have a long summer vacation of which the minimum length is six weeks (e.g. the Netherlands, parts of the United Kingdom) and the maximum is three months (e.g. Greece, Portugal). In Australia and New Zealand the summer holiday includes the Christmas season and the academic year is the calendar year; in all other countries Christmas marks the break between the first and second terms (or semesters) of the school year. There is almost always a break at Easter - in some cases it is about two weeks in length and falls between the second and third terms (e.g. Austria, Ireland); in others it is shorter and is seen as simply a break in the second semester (e.g. Sweden). Either a two-semester, or three-term, organisation is the norm with the exception of the majority of Australian states which now operate a four-term year. In addition, in most cases, schools observe the same statutory public holidays as the rest of the country.

There is quite wide variation in the number of days worked during the year: from 151 (Greece, secondary schools) to 224 (Austria, except elementary schools). Austria is one of the few remaining countries in which pupils work a six-day week. If Sundays are excluded this gives a range of days of opening from 48% of the theoretical maximum to 72%.

The length of the school day is generally shorter for primary than for secondary school pupils, and is generally shorter than the normal working day of adults. School work tends to be concentrated in the morning. That is, where the day is in two sessions, with a lunch break, the morning session is longer than the afternoon one; and where there is only one session it runs from around 8 or 9 a.m. to around 1 or 2 p.m. Attitudes to the lunch break vary considerably; where it exists it can range from 30 minutes (the minimum in Finland and Sweden, although some pupils have a longer break) to three hours (Spain, in some primary schools). Thus a school may be in use, even on a normal working day, for a period of as little as five hours. On the other hand it may be in use for considerably longer, for example in a secondary school where there are optional subjects, as well as a long lunch break, for nine or ten hours (e.g. France). (These examples concern the operation of a single institution with exclusive use of its own buildings: the case of double- and treble-shift operation is considered separately below).

Within this recognisably common pattern therefore there is already a good deal of variation between countries. In those educational systems which allow it, there is also some variation within countries. Thus the dates of holidays are not always exactly specified by the central authority, but some discretion is left to the local authority or to the school itself to determine them. In almost all countries represented at the seminar either the exact number of days to be worked, or a minimum - which is usually interpreted also as a maximum - is laid down at that national level. It should be noted however that in Australia and the United States there is a variation from State to State in the number of days prescribed. Discretion at school level is more usual in determining the length of the school day. This may be established by law as a daily minimum (e.g. United Kingdom), or as a prescribed number of hours per week (e.g. Austria), or even as a prescribed number of lessons per year (e.g. the Netherlands, so far as primary education is concerned). The school, or the local authority, is then free to make its own arrangements provided the legal requirements are observed.

The general picture then is one in which a school operates for six or seven hours a day for about 180 days a year. These bald figures suggest that

there is a great deal of scope for increasing the intensity of use of school buildings by changing the hours, or the days, on which pupils work. But before one begins to consider some of the ways in which this might be done, it must be recognised that many school buildings are already used extensively outside formal school hours. There are extra-curricular activities involving school pupils; the opening of facilities to members of the public or to clubs and associations; the use of school premises for formal adult education and leisure activities. In New York State (United States), some schools in the most deprived areas are in use from early morning to evening, six days a week, throughout the year, in a deliberate attempt to reduce inequalities and to provide a service to the community. But it is not the purpose of this report to make any detailed analysis of what may broadly be called "the community use of schools" about which much has been written elsewhere. There remain a great number of opportunities to increase such community use, which can be a highly effective way to make better utilisation of facilities. Nothing in this report is intended to undermine the efforts that have been made to open up school premises to a wider cross-section of users. Changing the school day and the school year is however a quite different subject, although it might have similar effects in terms of the intensity of use of school buildings, and it might also have an impact on the availability of school buildings for community use. Administrators have a duty to ensure that the best use is made of the available facilities - increasing community use is one way of doing this, introducing a different school day or school year may be another.

THE REASONS FOR CHANGE

Improving the utilisation rate of school buildings may be one important outcome of making changes in the organisation of school time, but it will not be the only one.

There are a number of possible educational, economic and social objectives of changing the arrangements which currently prevail. It should be stressed that these are aims which <u>might</u> be met, to a greater or lesser extent, by change: there is no guarantee that in any particular set of circumstances they would be met. That analysis has to be made in the light of the conditions which exist locally. What follows is a summary of the objectives of change which were put forward by participants at the seminar.

a) <u>Educational objectives</u>

i) to offer a better rythm of learning to pupils, resulting in greater concentration while at school and a better retention of information during holidays;

ii) to respond to developments in teaching and learning methods and the need for variation in the length of teaching periods and in the nature of activities;

iii) to facilitate change in access to and delivery of education, and to allow for greater flexibility therein;

iv) to open up education and training opportunities for adults, for the unemployed, or for others.

b) Economic objectives

i) to make more efficient use of buildings, equipment and personnel;

ii) to reduce the need for capital expenditure (particularly where it is necessary to meet peaks in demand);

iii) to give the opportunity to take out of use inadequate or badly-maintained buildings;

iv) to reduce per pupil costs;

v) to offer the possibility of building well-equipped specialised facilities;

vi) to improve participation rates.

c) Social objectives

i) to open up school premises for use by the wider community;

ii) to smooth out peaks and troughs in holiday seasons, thus allowing for more efficient use of tourist and other infrastructure;

iii) to improve the health of pupils and teachers, so reducing absences;

iv) to simplify, where possible, the arrangements for child care which have to be made by working parents.

The degree to which any of these objectives might be met and the precise way in which progress could be achieved depends on the nature of the change proposed and its purpose; it will not be sufficient simply to make a change. Equally it is clear that it is not necessary to change the school day or the school year to achieve all the objectives listed, although in the cases of some of them change is essential.

THE CONSTRAINTS

Whenever a system which is in operation - whether it be in education, or some other aspect of human existence - is changed, there will be difficulties or constraints to be overcome. It is important to distinguish two basic types of constraint - those which arise from the perceived disadvantages of the new system itself, and are thus permanent; and those which arise from the process of implementing change, and are thus transitory. For example, the introduction of a four-term year, where the school-year had hitherto been based on three terms, would mean that there would henceforth be

four holidays a year rather than three. The need for one extra slow-down and wind-up during the year could be seen as a permanent intrinsic disadvantage of the new system; whereas the necessity for some people to change their holiday habits would be a transitional problem.

The specific obstacles which will have to be overcome in implementing a change in the school day or the school year in a given locality can only be assessed on the spot. Amongst the possible sources of difficulty are:

i) the working practices and conditions of service of teaching and non-teaching staff: it will be necessary to take account of the impact of change both on individuals and on national (or local) agreements;

ii) the incidence of public examinations: this becomes particularly relevant in the case of school-leaving examinations which are a prelude to, or qualification for, the next stage of education;

iii) the established use of school premises by community groups outside normal school hours: proposals for change may disrupt this community use and engender the opposition of those who benefit from it;

iv) industrial (and to a lesser extent, commercial) holidays: if factories are traditionally closed for a period it may be difficult to arrange for schools to be open at that time;

v) child care: in those families in which the adults are out of the house at times when the children are not at school, arrangements - formal or informal - have to be made for child care. A change in school time, even if it does not increase the aggregate amount of time for which child-care is required, will upset those arrangements;

vi) family holidays: modifications which, for example, shorten the long summer holiday, or move established holidays, may be seen as disruptive by those whose habits have to be changed;

The common factor in a number of these examples is <u>inertia</u> in the system. A number of other aspects of daily life have grown up round the accepted pattern of the school day and the school year. For example the employment, in some countries, of young people, before school starts, to deliver newspapers. Changes in school time will inconvenience, at least initially, certain groups. Adjusting to the new situation will take time, and the adjustment should be planned for carefully in advance.

Many people will be affected by any change in school time, and the process of seeking their views, explaining the proposals, and planning the implementation of change should not be under-estimated.

THE SCOPE FOR CHANGE

The various changes and improvements to the organisation of school time that have been suggested or in some cases introduced can be categorised according to their effects. One group identified nine types of approach to making better use of school facilities and school time.

1. Increased use of premises during the school day

   a) by school
   b) by others

2. Use during evenings, weekends, or holiday periods

3. "Temps mobile" (timetable flexibility)

4. Networking

5. The four-term year (single track year-round school)

6. The staggered day

7. Double shift working

8. Multi-track year-round school

9. Flexible learning

Of these the first two both achieve a more intensive use of school buildings, and are options frequently pursued by administrators, but they do not involve any alteration to the organisation of school time and are not further discussed in this report.

The third and fourth categories of change deserve more attention. "Le temps mobile" is a concept which has been developed and tested in a number of schools in France. Annex C describes briefly what it entails and what it might mean. The method consists essentially in giving more flexibility to the school day by establishing small teams of teachers each with a time 'budget', rather than the traditional timetable. It could have considerable impact on the way in which a school operates and is worthy of further study. It is however a method which relies more on the co-operation of teachers and the internal organisation of space and time than on changes to the duration of the school day or to the arrangement of school-days during the year. In fact it is specifically designed not to alter these.

"Networking" is a rather more wide-ranging concept which was the subject of a symposium organised by the Programme on Educational Building in 1986. There are a number of ways in which co-operation between educational institutions could lead to more effective use of facilities, particularly expensive specialist facilities. Timetabling of the use of facilities - for example a workshop which is to be used by pupils from several different schools - will require careful planning if optimum results are to be combined

with minimum inconvenience. The potential of networking is discussed in more detail in the report of the symposium (2).

It was the next four categories of change which were the subject of most discussion at the seminar. We will deal with them in turn.

The four-term year

By contrast with the traditional three-term, or two-semester, year the distinguishing features of the four-term year are firstly that, as the name implies, there are four terms during each school year, and hence four main holiday periods; and secondly, that the terms, and to a lesser extent the holidays, are planned to be of equal length. The four-term year is under discussion in England (although the Government has said that it has no plans to introduce it) and in New Zealand, and it is already in operation in most of Australia, and in parts of the United States (where it is one variety of the 'single-track' year round school).

The organisation of the 1987 school year in Australia will serve as an example. The great majority of school pupils followed a four-term year, as only Tasmania and the Australian Capital Territory (A.C.T.) retained the traditional pattern. Each State has adopted a slightly different pattern: that in South Australia is typical. The four terms were:

2 February	-	16 April	(52 school days)
27 April	-	3 July	(50 school days)
20 July	-	25 September	(50 school days)
13 October	-	18 December	(49 school days)

The terms are of more or less equal length. The total number of school days is 201, and the holiday periods are of 1 1/2 weeks; 2 weeks; 2 1/2 weeks and 6 weeks (for the long summer holiday, which includes Christmas).

The three-term year which this new arrangement replaces continues in A.C.T. where the 1987 terms were:

28 January	-	1 May	(66 school days)
18 May	-	21 August	(65 school days)
7 September	-	10 December	(69 school days)

The terms are of approximately equal length. The total number of school days is 200, and the holiday periods are of 2 1/2 weeks; 2 1/2 weeks and 7 weeks (summer).

In the Northern hemisphere, the first term of the academic year - from mid-August or September to December - tends to be the longest, and to have the least number of incidental holidays. It is this term which the proponents of the four-term year would most like to see broken up. As regards the second and third terms, the fact that the date on which Easter Sunday falls can vary by more than a month means that it is difficult both to have terms of regular length and Easter falling during a holiday period. One implication of a balanced four-term year structure is therefore that Easter may fall during term-time, and be the occasion for a long weekend at most.

The major advantage which is claimed for a four-term year is educational. It is suggested that pupils will be better able to apply themselves to work and to concentrate over the shorter terms, and that both they and their teachers are less likely to succumb to tiredness and stress. Certainly many observers have remarked illness and absenteeism towards the end of long terms, particularly winter terms. Research has not however proved that the shorter terms do indeed lead to better performance. These arguments apply with more force to younger pupils than older ones, and there is a counter-argument that an extra break in the year might upset the concentration of senior pupils. It is as yet too early for changes in Australia to have been properly evaluated but it would be valuable to have such an evaluation in due course.

It was suggested moreover that it would be wrong to underestimate the catalytic effect that the introduction of a four-term year might have on traditional thinking. The demonstration that change can be implemented might prompt the consideration of other more radical approaches.

It is not possible to claim substantial economic or financial benefits from the simple introduction of a four-term year. School buildings will in principle be in use for the same number of days each year and the same number of hours each day. To the extent that summer holidays are shortened, and holidays taken instead on days when heating would be needed, there may be some savings in energy consumption. On the other hand if the summer is sufficiently hot to necessitate the air-conditioning of buildings, as in some parts of the United States, the experience is that energy costs will rise.

The wider social implications of the four-term year are in a similar way limited. There will be some initial impact on vacation employment patterns, but these can be expected to adjust over a few years. The potential for extending the use of the tourist infrastructure will only be realised to the extent that different parts of the country stagger their holidays. If, in the example of Australia, some schools (retaining the same lengths of term) started the cycle a week earlier (on 26 January) and some a week later (on 9 February) the number of weeks on which at least some pupils would be on holiday would be increased from 12 to 20. This is of course not a property of the four-term year only. Staggering the beginnings and ends of three terms in a similar way would have a similar effect. It is noteworthy that in both Finland and France there is a winter holiday in February or March when many people indulge in winter sports. In both countries this holiday is staggered in order to spread the load on the winter-sports stations. Why not apply the same principle to other holidays?

The staggered day

In a school in which classes run from 09.00 to 12.00 and from 13.30 to 15.30 classrooms are only in use for at most five hours out of twenty-four. If there is a purpose built dining-hall it may be in use for as little as two hours.

The principle underlying staggered days is to use the facilities of the institution for a period longer than the normal school day of one pupil or student. There are a number of different ways in which it might be possible to do this.

A theoretical example is shown below (Figure 1). It is assumed that there are 6 lessons a day, each lesson is 50 minutes long (including 5 minutes changeover) and that there are three classes only. Under a traditional arrangement lessons might run from 08.50 to 15.20 as follows. All three classes have lessons at the same times, all lunch at the same time. Three classrooms and one large dining-room are required.

Figure 1 The staggered day

Traditional day		Staggered day			
	All classes		Class A	Class B	Class C
08.50	Lesson 1	08.30	Lesson 1	Lesson 1	-
09.40	Lesson 2	09.20	Lesson 2	Break	Lesson 1
10.30	Lesson 3	10.10	Break	Lesson 2	Lesson 2
11.20	Lesson 4	11.00	Lesson 3	Lesson 3	Break
12.10	Lunch	11.50	Lesson 4	Lunch	Lesson 3
13.40	Lesson 5	12.40	Lunch	Lesson 4	Lesson 4
14.30	Lesson 6	13.30	Lesson 5	Lesson 5	Lunch
15.20	End of day	14.20	Lesson 6	Break	Lesson 5
		15.10	End of day	Lesson 6	Lesson 6
		16.00	-	End of day	End of day

In theory if lessons were staggered only two classrooms in addition to a small dining-room would be required. Each class has, instea of one long lunch-break, a shorter lunch-break and one other break period. While it may not be possible in practice to achieve this theoretical saving of one classroom in three a study in the Netherlands of this approach has shown however that a substantial improvement in utilisation is possible, and if this were achieved the savings would be considerable.

There are many other ways of staggering the school day. A number of individual schools in England have experimented with different arrangements which are all intended to introduce greater flexibility into the way in which lessons are organised. In most, the bulk of formal teaching is carried out in the morning, while a range of different options and activities are programmed for the afternoon. One commentator notes "These time-flexing approaches vary considerably in detail ... But they all seem to share a fizz and an excitement. The excitement lies partly in the positive attitudes of pupils and staff; partly in the atmosphere created in the school; but most of all in glimpses of a new world where the timetable straitjacket no longer exists". (3)

In the example described in Figure 1 it is accepted that, although not all pupils have to have their lessons at the same time, each pupil is present for a continuous period during the day. If it is accepted that attendance does not have to be consecutive then further possibilities are opened up. A given student could have four lessons on one day, eight the next; he might have two lessons in the morning, three in the afternoon, one in the evening. The building could be open for teaching from 08.00 to 22.00. This is more or less what happens in some colleges of further education in England. It is a

model which is more appropriate for institutions where students are past the age at which school-attendance is compulsory (for example, the lycées in France) and who can look after themselves when not at lessons. It implies a considerable degree of sophistication in the planning of timetables and the allocation of rooms. No student who has to travel for one hour to reach the school will thank the timetabler who allots him electronics at 08.00 and mathematics at 20.00. Teachers too will wish to ensure that the precious hours when they are not teaching are not scattered about the week in forty or fifty-minute periods. More flexible time-tabling is likely to be more acceptable to both teachers and students, if adequate provision is made for individual work-places in which they can study and prepare outside normal lessons.

Double-shift or treble-shift systems

One variation of the above utilises the school building from morning to night, but retains a consecutive period of attendance at school for each pupil, and so is suitable (at least in this sense) for younger pupils whose parents need to know where they are and that they are being looked after while not at home. The OECD Member country where it is most prevalent at present is Greece, although it can also be found in others.

The situation is one in which there is an acute shortage of school buildings in urban areas. Not only is the school-age population increasing, but compulsory education has been increased from 6 years to 9 years since 1976, and the number of pupils per class has decreased sharply. In the larger towns almost all schools accommodate two separate educational establishments, one operating in the morning and one in the afternoon, often alternating from one week to another. Many also accommodate evening schools or classes for adults or those preparing for university entrance. A typical pattern is:

Morning shift:	08.30 to 13.30
Afternoon shift:	14.00 to 19.00
Evening shift:	19.30 to 22.30

Although this way of working is tolerated, it is not considered satisfactory. It is generally the case that double-shift working is regarded as a last resort. It is unpopular with parents whose children are at school for no more than half the normal working day. It makes for considerable practical difficulties at the school, where cleaning and maintenance have to be done at night or at weekends. It is unpopular with teachers who have no work-rooms of their own and insufficient storage space. It is unpopular with educationists attempting to introduce qualitative change since every additional space for a library, or a physics laboratory, for example, is colonised as a classroom. It is unpopular with children who do not feel they have a place of their own at school.

But only the first of these reasons is a real obstacle to the use of a double-shift system. Offices, for example, are usually cleaned late at night, or early in the morning. Each of the groups can be allocated its own display space, cupboards and shelving, and the responsibility for looking after them. If one starts from a position in which two new schools are needed, it is possible to build only one. Despite catering for two sets of pupils it should be managed as one school, with one principal. It would be more than one

however: it would have more storage space, more administrative offices, more teachers workrooms, more social areas than a single school. It might cost 30 to 40 per cent more than a single school - but it would certainly not cost twice as much. Its laboratories, workshops and equipment would be in use for ten or twelve hours a day instead of five or six. That alone might make it worth buying expensive, up-to-date, equipment whose cost could be amortised more rapidly.

However, where work prevents parents from being at home it will be necessary to offer younger children the option of staying and working, or playing, at school: this will require additional leisure facilities as well as libraries and resource centres for private study. Many municipalities have sports and leisure facilities which are underused during the day which could be pressed into service, but where these are not available some provision will have to be made.

Participants at the seminar continued to regard double-shift working as a temporary expedient, but noted that, if adequate measures, such as those outlined above, are taken, it need not be ruled out in all circumstances.

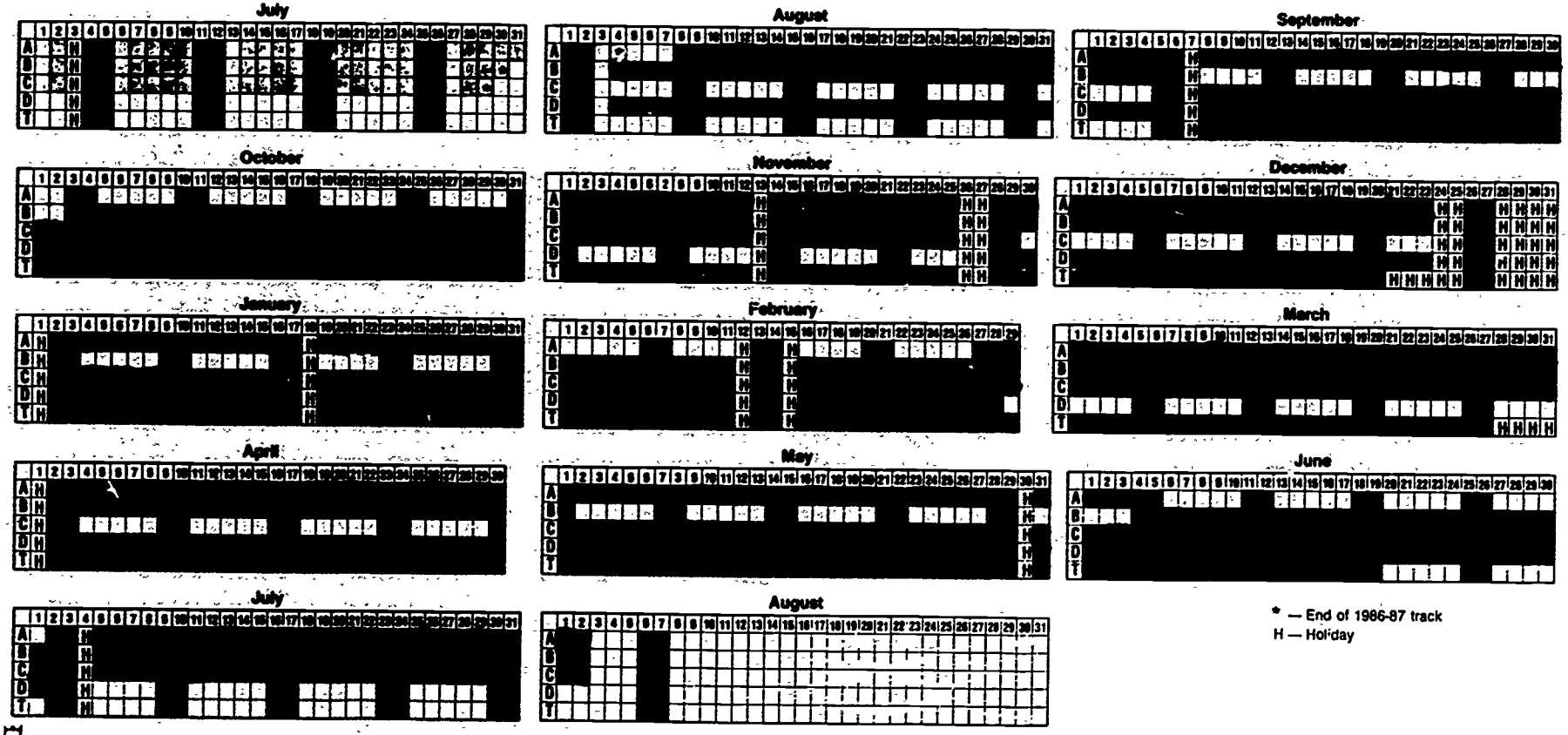
Year-round schools

The year-round school is a concept which seems to have originated in the United States. Under this system schools are kept in operation for forty-eight or more weeks a year. Once again there are a number of possible arrangements of school days and holidays. The example described is in use in the Oxnard School District of California. Figure 2 (overleaf) reproduces the calendar for 1987-88, showing dates for the four 'year-round' tracks (A, B, C and D) as well as for the traditional track (1). Each pupil, on whichever track he or she is, will have 180 days at school; teachers have an additional three days of preparation. The type of organisation used in this case is known as the 60-20 plan: 60 days (12 five-day weeks) of school are followed by 20 days (4 five-day weeks) of holiday, and this is repeated three times during the year. In the example shown the pattern is not quite regular.

On any given day pupils from three of the four tracks A, B, C, and D will be in school, those from the fourth will be on holiday. There are only a few days in the year when the school is closed - a period of about 10 days over Christmas and New Year, and a number of national holidays of one or two days. Assuming that each track is of the same size, a school built to accommodate 400 pupils can, using this year-round system, cater for a total enrolment of 500 (i.e. 25% more). In this example a traditional track (T) has been retained in order to offer choice to parents and pupils. The year-round school in its pure form would dispense with this 1-track, and in that case the additional numbers that could be catered for would be greater. A 400-place school could provide for four tracks each of 133 (in one case 134) pupils, and the total enrolment of the school would be 533 (i.e. 33% more than its notional capacity).

Two other ways of organising multi-track year-round school calendars are the 45-15 plan, and Concept 6. The 45-15 plan alternates nine weeks of school with three of holiday, four times a year. It too can accommodate up to 33% more pupils than the traditional arrangement. Concept 6 divides the year into six 43-day periods. Each pupil has two 86-day semesters alternating with

Figure 2 Year Round and Traditional Calendar in Oxnard School district, California 1987-1988



43-day vacations. This gives only 172 school days per pupil and so the school day has to be slightly longer in compensation. The theoretical additional capacity with this plan is however 50% (4).

The main advantage of year-round school organisation is that it allows additional pupils to be enrolled without necessitating new building: it has therefore been found particularly useful when there is an unexpected increase in enrolments or a peak in enrolments which will last only a few years. For example in Jefferson County, Colorado, United States, now that overcrowding is no longer a concern, a return has been made to a more traditional school year. However year-round schooling should not simply be seen as a temporary or second-best solution; a fuller discussion of its implications will be found below.

These four solutions do not exhaust the possibilities for change. The final type of approach identified at the beginning of this chapter was 'flexible learning'. With the growth of individualised learning, where work may be done at home, or at a resource-centre, at the student's chosen pace, the concepts of the school day and the school year begin to empty of meaning. That the seminar concentrated on ways of arranging the school year which did not imply any alteration in teaching methods, or in the total amount of time worked, was deliberate. To have called into question these aspects would have broadened the subject so much that sensible consideration of the implications of change within the time available would have been impossible. There was however a strong conviction amongst participants that a more flexible educational organisation offering an education tailored more to individual needs, and utilising more fully the potential of new information technologies would become more frequent in the future, especially at the post-compulsory level of education, and that the potential of such developments should not be ignored (5).

THE IMPLICATIONS OF CHANGE

Changes in the organisation of school time will, as we have seen, have an impact in a number of areas. The seminar, whose participants comprised for the most part those with responsibility for planning, building, funding and management of educational buildings, concentrated on the implications of change in these areas, although educational and social implications were not overlooked. This section summarises their conclusions. It is noteworthy that several of them re-emphasise, and give added urgency to, aspects of responsive school building policies which have been identified elsewhere in recent years (6).

Planning and building

There is a need for greater emphasis - more time, money and skill - to be placed on the planning of educational facilities. Projects need to be more carefully evaluated as part of the planning process. These are general statements, but particularly true when what is proposed involves modifications to the accepted pattern of school time. More flexibility (that is the capacity of a building to adjust quickly to frequent low-magnitude changes in the demands put upon it) should be built in to new buildings and be taken into account in adaptations. Users should be more involved in the planning process.

There is a widespread need for the provision of a variety of different types of teaching space within each school. Changing arrangements of the school day serve to underline the importance of that requirement. Experimentation with, for example, 'le temps mobile' is likely to be far more meaningful in a school where there is a real possibility of working in small groups, and thus of utilising the freedom offered.

If a school is to be used at any time of the year this may mean in some countries or regions that more attention has to be paid to prevailing climatic conditions. For example where the summers are very hot it may be necessary to contemplate installing some form of air-conditioning in buildings which are to be used throughout the summer months. More often, however, appropriate orientation of the buildings, combined with natural ventilation and protection from direct sunlight at the hottest times of day will be sufficient. In a school used more intensively - whether through a longer day or a longer year - there would also be a need for more storage space, more administrative offices, more work-rooms for teachers and more social areas than in a school used conventionally. More durable materials should be utilised where circumstances permit since premises will be subjected to substantially heavier use than in conventional schools.

As is frequently pointed out the greatest difficulties will arise not in designing new school buildings, but in adapting those that exist already so that they are better suited to new educational practices. The wholesale remodelling of existing stocks of educational buildings is not practicable. What can be undertaken, where it does not exist already, is the development of a reliable information base on what facilities are available, what condition they are in, and how they are being used. This information is a prerequisite of effective property management and in the present context it will help to identify those spaces which could be used more intensively or could be shared between institutions, those which need to be adapted to meet the new requirements, those which may need to be added in order to create a suitable working environment, and those which eventually ought to be taken out of use (7).

Finally, it should be noted that in the particular case of multi-track year round schools there is likely to be a minimum viable size of establishment which will be rather larger than that prevailing for traditional schools in the same system and this will need to be taken into account in planning the siting of new schools, and, if necessary, the rationalisation of existing stock. A problem which might arise if year-round schooling were introduced in an area where enrolments were falling, or were less than available capacity, is that the emergence of additional space at a "popular" school might impoverish less popular ones, eventually making them non-viable.

Better matching of capacity to enrolments, combined with well-demarcated catchment areas (where appropriate), would avoid this difficulty.

Funding and management

Again, the contemplation of changes in the organisation of school time leads to a restatement of management principles which are of general validity. Thus, decisions about capital investment should be preceded by an economic appraisal of the options which will take account of the lifetime costs of the building, including its maintenance and operation (8).

Since, as we have seen, one of the more persuasive arguments for the adoption of a different organisation of school time will often be the cost savings that it offers, it is particularly important to assess these as accurately and completely as possible. Naturally comparisons must be made on a unit cost (cost per pupil) basis. An assessment of year-round schools in California suggested that on this basis:

-- Initial capital costs will be lower;

-- External maintenance costs will be lower (because there are fewer buildings);

-- Internal maintenance costs will be higher;

-- Energy costs may be either higher or lower depending on local circumstances (higher if, for example, the school is open on winter days when it would otherwise have been closed, and additional heating is required; lower if the school is open on summer days when it would otherwise have been closed and no heating is required). In the example studied the schools were air-conditioned and the additional cost of cooling in the summer months increased average energy costs;

-- There might be minor variations in staff costs but they are unlikely to be significant;

-- Buildings and equipment are likely to depreciate in value more rapidly; on the other hand the greater intensity of use of high-technology equipment will lead to a more rapid amortisation of costs and a better overall return on expenditure (this argument becomes compelling when one considers the post-compulsory technical and vocational sector);

-- There will be once-and-for-all transition costs when the change is made to a year-round system.

Secondly, the way in which finances are allocated can have a considerable influence on how well a building is used. The extent to which schools or colleges are responsible for managing their own budgets varies from country to country: generally speaking, such responsibility is limited, but there is a move towards devolution to school level. There are two ways in which this move might affect intensity of use.

The less radical of these is to give schools the freedom to rent out rooms that are not in use to non-school users. These might be community groups, adult education classes, sports clubs. A charging policy has to be established, and some safeguards (covering insurance, and the nature of the activities permitted) agreed with the education authority responsible for the school. The more radical alternative is to allocate to the school an operating budget which is sufficient t cover its accommodation requirements (assessed in relation to the type of school, number of pupils, curriculum offered) and then to charge it a rental for space utilised. The incentive to the school to make good use of its facilities is clear. If the school were then given the additional freedom, for example, to stagger its working day - so that laboratories and workshops were in operation for perhaps ten hours a day instead of six - the intensity of use of facilities might rapidly improve. Again there would have to be safeguards: any change would have to have the support of the majority of pupils, parents and teachers; it should not be possible for schools to save money by providing inadequate accommodation.

The details of such schemes are for local determination, in the light of prevailing laws, regulations and practices. The underlying principle however is universal: schools need an incentive to manage and use the facilities at their disposal effectively. (9)

The third general principle which needs to be stressed is that those who have an interest in the running of a school should also have a say in its management. This does not mean that all day-to-day decisions have to be referred to a committee or governing body, but that questions of policy should be discussed by those who will be affected by them.

Once again there is nothing new in the enunciation of this principle: its application to possible changes in the school day and the school year might imply an extension of the discussion and consultation process to groups other than those who would normally be involved in the running of a school. We return to this theme below.

The life of the school

The quality of education is of paramount concern. Provided that changes have been introduced in consultation with and with the consent of those affected by them there is no obvious reason why they should adversely affect standards of achievement. Indeed one would expect the opposite to be the case: a pattern of learning which puts less stress on pupils and teachers is likely to lead to better results. Similarly, to the extent that the pattern of working has been chosen by those in a school, one could expect a commitment to it which might be absent if it had simply been imposed from outside. It is not however enough to rest on these expectations. The introduction of changes in the way school time is organised should be accompanied so far as is possible by an evaluation of their effects. Although it is never easy to measure educational outcomes in a reliable way the attempt should be made to isolate the impact of a major change. This will be the easier if other parameters have not changed at the same time.

It has to be recognised that if a staggered day or double-shifts, or any of the changes discussed above, are introduced in order to make resource

savings there will be those who feel that they are being given a second-rate service. They may have a strong case: expenditure per pupil is often cited as a measure of relative benefit in a system. The introduction of a change that has the effect of reducing expenditure per head may prima facie be interpreted as a reduction in the level of service offered. Authorities will need to be able to refute such claims. The year-round school has frequently been introduced in the United States in areas of rapid enrolment growth, which are often, inevitably, areas of immigration. It requires considerable effort to persuade people that they are not being fobbed off with inferior standards, and that there are educational and social benefits, as well as economic ones to be had. If, after a change has been implemented, evaluation of results shows that there is a falling-off in standards achieved that cannot be attributed otherwise than to the change of school-time, then the decision to make that change must be reviewed.

Apart from academic achievement, changing the school year will have its effect on other aspects of school life. Some are positive: it can open up possibilities for additional courses, individual study and a modular organisation of the curriculum. Others are less so: the disruption which can be caused to events which involve the whole school, and to extra-curricular activities. Year-round schemes may necessitate re-thinking of examination schedules. Most changes are likely to produce additional administrative work.

THE WAY AHEAD

Let us assume that the education department in authority X is interested in the possibility of changing the organisation of the school day or the school year in its area. How does it proceed? The seminar identified three key elements in the process: information, incentives, and pilot projects.

a) Information:

We have already seen how the administrator needs information about the available school building stock, how it is being used, and the demands expected to be placed on it. In order to begin considering a change those involved in the decision-making process need information about the likely effect of change, its costs and its timing. Proposals for change once drawn up by the education authority, have to be widely publicised and discussed. The effort involved in this should not be under-estimated.

b) Incentives:

People will never be persuaded to change the habits of a lifetime for the convenience of administrators, and seldom even for a theoretical general good. It may be that the economic, educational and social benefits of the change which have been identified in the information-gathering and -disseminating phase will be convincing in themselves. It may thus be that, taking our year-round school example, the prospect of lower costs combined with the possibility of holidays outside peak periods will be universally

attractive; but this is unlikely. Experience in California suggests that while some sections in the community will perceive benefits others will see disadvantages. It is almost inevitable that change will affect people's interests in different ways. Each player in the game will therefore need to draw some benefit, will need to be offered some incentive.

The sorts of incentives which can be offered include:

i) Choice: so far as possible parents, teachers and students should be able to influence the arrangements made (e.g. in a year-round school system choose which track or attendance cycle they will follow). Not everybody's wishes can be met, but the opportunity to take part in an openly negotiated process is important.

ii) Financial incentives: where there is a net financial saving to the providing authority, after covering transitional costs and necessary improvements to the building, a proportion of that saving could be made available to the school concerned for them to spend as they wish.

c) Pilot projects:

Rather than attempt to introduce more or less radical changes simultaneously throughout a country or region, it will be necessary to proceed, wherever possible, by means of pilot projects. These can be based on one school, or a number of individual schools, in a small locality, where the impact of change can be properly monitored. In this experimental phase it is probably best to take 'volunteer' schools only, to establish a trial period, and to discuss plans fully so that everyone knows what is involved. Incentives offered must not be unrealistic however. Just as it is important not to give the impression that the new arrangements are a second-best to the traditional way of working, so they must not be seen as an advantage, enjoyed by some but denied to others. The conditions and incentives applied in the pilot schools must be such that they can be reproduced generally if the experiment is a success and there is a desire to extend it. The purpose of pilot projects should be to iron out difficulties in administering new arrangements, and to demonstrate that they can be made to work.

IN CONCLUSION

The school day and the school year have an impact on the lives not only of pupils and teachers, but also of parents, and to a greater or lesser extent of the whole community. Public transport, the tourist and leisure industries, the casual labour market from farms to post-offices, the media; all have to take account of the pattern of school time. If the organisation of the school day and the school year is to be altered, a number of steps are necessary:

i) There must be greater public awareness of the scope and reasons for change and of the issues involved;

ii) In parallel with that, evaluation of the effects of change (where it has already been introduced) must be continued;

iii) In a given locality, specific proposals suitable to that locality have to be developed, discussed and implemented. Change will be the easier to introduce where the administration of education is decentralised. A national curriculum does not imply national determination of the days and hours on which it is to be followed.

For the participants in the seminar, the evidence that there is much to be gained and little to be lost from making better use of school buildings in this way was convincing. The case is particularly strong at the post-compulsory level, where students are no longer under an obligation to attend, and where the demand for facilities and equipment exceeds supply. But there are strong arguments for change at primary and lower-secondary levels too. The subject deserves a wider debate.

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THE PURPOSE OF THE SEMINAR AND ISSUES FOR DISCUSSION

PURPOSE OF THE SEMINAR

The purpose of the seminar is:

- to survey current practice in the organisation of school time against all three of the objectives outlined above;
- to identify the scope for change;
- to discuss advantages and disadvantages of different patterns of organisation;
- to consider the effects such changes may have on the planning of provision;
- to examine their direct building implications (additional space requirements, new specifications, maintenance, property management, running costs, etc.);
- to discuss incentives needed to promote desired change;
- to assess the broader benefits of changing time patterns.

Amongst the benefits which have been claimed for various experiments in changing the school calendar are:

- a better balance in teaching/learning activities between theory, practical work and extra-curricular activities and greater flexibility and variation in the time devoted to specific elements of the curriculum;
- an improvement in pupils' retention levels with shorter holidays between a larger number of terms in the year;
- greater interest on the part of teachers, other staff, parents, pupils and the local community, if they are given the opportunity, to influence arrangements made to fit local circumstances;
- improved opportunities to accommodate other educational, socio-cultural or leisure activities on school premises as a result of increased capacity arising from a change in the school calendar;
- new possibilities for disposing of educational buildings of which an increasing proportion may be unfit for their purpose, badly located, poorly constructed or offer a generally depressing environment, and for reinvesting proceeds to improve quality of provision elsewhere;

- the opportunity for teachers, parents and pupils to choose each year the vacation and school attendance cycle which will best fit family circumstances or preferences;

- improvements in the use of tourist facilities and children's camps as well as in transport conditions with a greater frequency of and variation in vacation periods.

The topic is important for all PEB countries whether they have to cater for increasing school populations, are facing or will be facing declining enrolments, or must use existing resources more effectively in order to meet new demands, provide for new clientèles or compensate for inequality in provision.

ISSUES FOR DISCUSSION

Against the above background, it is proposed that the semi focuses its discussions on the kind of issues outlined below. The objective is to examine how various changes in time patterns might contribute to making more effective use of building resources bearing in mind that the prime purpose of such changes is to improve the quality of the educational service. While questions such as the mechanisms of learning, children's biological rythms, teachers' roles and duties, purely educational aspects of time-tabling, are essential aspects in any reorganisation of school time, they are not however the main subject of this particular seminar.

It is evident and commonly accepted that the d of solutions adopted will need to vary according to the age group and leve of education concerned and this will need to be borne in mind throughout the discussions. Likewise, different solutions may well be needed for urban and rural areas in order to take account of local circumstances or climatic conditions.

Changes in the structure and length of the daily and weekly school calendar

To cope with peak enrolments resulting from a prolongation of compulsory schooling, demographic trends or an increase in retention rates, many countries have introduced systems which make more intensive daily use of accommodation and equipment. The most frequent pattern consists of morning and afternoon shifts, occasionally with a third shift in the evenings. The staggered day, or a system of interlocking timetables, is a variation on the same theme and is based on the principle that different classes start at different times and have lunch at different periods. While all these systems result in a considerable reduction in the need for accommodation and new building, they are generally considered as makeshift solutions to be eradicated as soon as circumstances allow.

While these systems aim at making more effective school use of facilities, other policies have been adopted which focus on making all or parts of school premises available, mainly after school hours, for extra-curricular activities, adult education, courses for the unemployed and socio-cultural or leisure activities. In these cases schools have become community centres bustling with activity for twelve to fifteen hours a day.

For both types of use, a new concept is also emerging, namely the development of networks. Their main feature is that they propose the sharing of facilities to provide opportunities which would otherwise not be possible or too expensive.

These various policy approaches, which are in no way mutually exclusive, give rise to a number of questions.

Why are shift systems or the staggered day generally regarded as second best or temporary solutions? What are the actual disadvantages of these systems? Are they linked to attitudes or habit, to difficulties of time-tabling, to problems of school transport? Are they due to the fact that most existing accommodation was never planned for this type of use?

Why have policies for increased community use of school premises not been more widely adopted? Are there limits to the demand for this kind of use of school premises and hence to the number of schools which might be affected? Will there be an increasing demand for day use by the community and if so, how can this be met?

To what extent can the concept of networking with specialisation of different components in the network extend the use made of school facilities and overcome the limitations referred to above?

What sort of changes are needed to current accommodation to make these extensive use patterns a viable alternative to the traditional organisation of the school day and school week? What incentives are needed to compensate users for the loss of the opportunity to make space their own (e.g. by leaving project work out, wall displays)? Is there a need to provide additional support areas (e.g. storage facilities, teachers' workplaces, preparation rooms, workshops for equipment maintenance, social areas)?

What are the economic consequences of more intensive daily use? How does it affect premises-related running costs per pupil? What is the pay-off period of the capital investments that may be required for modifications and extensions? To what extent will maintenance costs increase? Is it necessary to use materials of a higher quality to minimise the effects of wear and tear?

To what extent will more extensive daily and weekly use of school premises require changes in funding arrangements and management structures? Who is to pay for what? Who is responsible for what?

Changes in the structure and length of the school year

It is evident that just as an extended school day would imply better use of accommodation and equipment, so would a different yearly time pattern. The fact that school buildings often remain closed and idle an average of 150 to 200 days a year appears to be a waste of expensive resources, including increasingly sophisticated equipment. This situation seems especially wasteful when one considers the growing need to provide for those seeking a second chance of basic education, people needing to retrain for new careers

and for firms and individuals who are dependent on gaining new skills to cope with the demands of a changing workplace. Information technology will not only require the acquisition of new knowledge and skills, it will also change the times, places and ways in which people teach and learn.

Extending the use of school buildings to say an average of 250 days a year would affect learning activities, the work of teachers and other staff, time-tabling, school transport, family life and holiday patterns. There are a number of fundamental questions similar to those raised earlier in connection with increased daily use to be asked.

> Is it possible to conceive a school year radically different from that operated in most countries to-day? If so, what sort of patterns could be envisaged?
>
> What basic criteria have to be met to ensure the successful implementation of a flexible school year?
>
> What are the main advantages in building terms? Given that a flexible school year can allow 30 to 50 per cent more pupils or students to be served by the same building, would its adoption make it easier to dispose of sub-standard buildings? How can the opportunity thus provided be used to improve the quality of remaining facilities and make necessary replacements?
>
> What are the effects of an extended school year on capital and recurrent expenditure? Coupled with the introduction of new information technology, growing use of distance learning techniques, the need to cater for new clientèles how will an extended school year affect the design or redesigning of schools?

Incentives

There is a considerable distance to travel between identifying a desirable change and achieving its successful introduction.

Progress in this particularly difficult area is to a large extent dependent on a change of attitudes of all concerned. Therefore, improved awareness and incentives of various kinds are needed. Indeed, when considering more radical departures from the traditional school calendar, there will be a need to convince the great majority of those affected that they have something to gain from these. In this context, it must be stressed that the proposition is <u>not</u> to modify the total number of hours worked or annual days of holidays of pupils and teachers. The objective is to change the way in which periods of work and holidays alternate and thus the times and the rythm at which pupils and teachers work with a view to improving the quality of education and making better use of accommodation and equipment.

The kind of incentives which may be appropriate will obviously vary according to the context and the nature of the change envisaged. The seminar will be invited to analyse what incentives could be envisaged in different situations. A few general questions may however already be asked at this stage:

> How can people who have never questioned traditional arrangements be made aware of the need and scope for change?

To what extent should regional or local authorities and school communities themselves be given greater freedom in negotiating and operating different school calendars to fit local circumstances?

Can participation of all concerned in developing proposals for change in time patterns be regarded as in itself an incentive?

In what way can pilot projects, closely monitored and evaluated, act as a catalyst in the introduction of change?

It is hoped that the seminar will be able to expand on the issues outlined, produce examples of effective changes, draw attention to the difficulties entailed and ways of overcoming them, develop practical and realistic suggestions for further action.

THE SCHOOL DAY AND THE SCHOOL YEAR IN THIRTEEN OECD COUNTRIES

The following information has been assembled by the Secretariat from the papers prepared for the seminar; it should not be interpreted as a statement of legal requirements in any Member country.

AUSTRALIA

Year Between 194 and 201 days of tuition (1987). Most States operate a four-term year, with one six- or seven-week holiday (Christmas/New Year) and three shorter holidays.

Day Most schools operate from 08.30 or 09.00 until 15.30 or 16.00, with shorter hours for younger children. There is normally a lunch break of about an hour and a short morning break.

AUSTRIA

Year on average 244 days (six-day week), except elementary school where a five-day week is worked (on average 186 days). Nine-week summer holiday, and five other weeks, including breaks at Christmas and Easter. The dates are centrally-determined and are the same for all provinces except that Burgenland, Lower Austria, and Vienna are one week earlier than the rest of the country.

Day Lessons are distributed evenly through the day. Maximum number of lessons per day is eight (5th to 8th grade) or ten (9th grade on).

ENGLAND

Year 190 days (except for the third grade of upper-secondary school, which is 168 days followed by examinations). There are two terms, for which the National Board of General Education sets the starting and finishing dates. Five-day week, except that terms sometimes finish on a Saturday (to enable parents to visit). Holidays are in summer from about 1st June (6th at the latest) to about 15 August (20th at the latest); ten days at Christmas; staggered winter holiday (February/March).

Day Five to seven lessons per day, according to age, usually of 60 minutes, inclusive of a 10-minute break; school has discretion in organisation. The day starts at the earliest at 8 a.m.; young pupils finish at 1 p.m.; others at 2 or 3 p.m. There are some evening upper-secondary schools.

FRANCE

Year 36 weeks of school; 16 of holiday (of which 10 in summer). Dates are laid down nationally by Ministry of Education (n.b. staggering of February 'winter sports' holiday).

Week Primary: Nine half-days per week (equivalent to 162 days per year)

Lower secondary: 27 to 30 1/2 hours per week (depending on subjects)

Upper secondary: 27 to 36 hours per week (depending on subjects)

Day 8 a.m. to 5 or 6 p.m. (1 1/2 or 2 hours break at lunch-time)

Note Over the years, the summer holidays have shortened while other holidays have lengthened. The terms are not of equal length.

GREECE

Year Primary: 161 days; Secondary: 151 days.

Three months summer holiday, plus Christmas and Easter holidays. Centrally-determined.

Week 23-25 hours in primary; 30 in secondary; and 34 in upper-secondary, spread over 5 days.

Note In urban areas two-shift, and in some cases three-shift, working is widespread.

IRELAND

Year Primary: 184 days; Secondary: 180 days (including 12 days of examinations) (NB Most schools work five days a week; the minority that operate a six-day week have to be open for a minimum of 200 days).

Day Primary: minimum of 4h 10m instruction per day (3h 10m for infants. Regulations set minimum periods for breaks.

Secondary: minimum of 28h per week (in five-day week schools).

THE NETHERLANDS

Year Primary: 860 teaching periods of 1 hour (4-8 year-olds) per year;
1 000 teaching periods of 1 hour (8-12 year-olds) per year.

A six-week summer holiday is laid down by central government, and most schools also have one week in October, two at Christmas and one at Easter, as well as normal religious and national holidays.

Secondary: 60 days holiday per year, of which 35 in Summer, and others as for primary schools. School boards have discretion over odd days.

Day Primary: school boards are free to decide starting times and the length of the lunch break. Primary school pupils are not taught witnout a break for longer than two hours, but it is relatively common for breaks to be kept to a minimum so that schools operate from, say, 08.30 to 14.00. With longer breaks the school day will run from, say, 08.30 to 15.15.

Secondary: a maximum of 32 lessons may be given each week; the average is 30. Considerable discretion over the timing of breaks, including the lunch-break, is given to school boards, who may also seek permission from the Minister to vary the length of lessons.

NEW ZEALAND

Year Primary: 400 half-day sessions per year.

Secondary: 380 half-day sessions per year.

Note At present the school year is organised into three terms, but the introduction of a four-term year is under consideration.

PORTUGAL

Year The number of days worked was increased for the 1987-88 school year, from 163 days to 174 days in primary and preparatory schools, and from between 152 and 161 days to between 160 and 170 days in secondary schools. The school year now begins on 21st September instead of at the beginning of October. The three terms are of more or less equal length, and there is a three-month summer holiday.

Day Primary: four teaching periods per day;

Preparatory: five to seven teaching periods per day;

Secondary: five to eight teaching periods per day.

Note In many urban areas two- or three-shift working is necessary because of shortage of accommodation.

SPAIN

Year 180-185 days. The year runs from 15th September to 30th June for basic general education(EGB). In secondary schools (15+) classes start on 1st October and finish about 15th June; there are then examinations until 30th June. The summer holiday is thus ten weeks or three months, and there are holidays at Christmas (three weeks) and Easter (ten days).

Day Primary: five hours a day, five days a week, usually 09.00 - 12.00 or 09.30 - 12.30 or 10.00 - 13.00 in the morning and from 15.00 to 17.00 in the afternoons. Some variation is permitted if the school board so requests and the parents are in agreement. There are a very small number of schools where a continuous day, from 09.00 to 14.00, is worked.

Secondary: usually either 09.00 - 14.30 and 16.00 - 18.00 or 09.00 - 13.30 and 15.00 - 18.00 (Wednesday afternoon excluded).

SWEDEN

Year 178 days minimum, spread over 40 weeks in two terms. Local authorities determine when to start and finish the year, although freedom is limited in practice. A typical town in 1987-88 opened its schools from 17th August to 22nd December, and from 11th January to 10th June, with some incidental holidays during these periods.

Day from 20 lessons per week for new entrants, to 35 lessons per week from the fifth year onwards.

SWITZERLAND (Vaud)

Year Runs from August to July in two terms (N.B. many German-speaking cantons start the school year in the Spring). There are 39 weeks of school, and 13 weeks of holiday (of which 6 in the summer).

Week 4 1/2 days of lessons per week: 23 periods (each of 45 minutes) for 5-6 year-olds; 28 periods for 7-10 year-olds; 32 periods for 11-16 year-olds.

Day Pre-primary: 08.30 or 09.00 to 11.00 and 14.00 to 16.05

Primary: 07.35 or 08.00 to 12.00 and 14.00 to 16.05

Lower-secondary: 07.35 or 08.00 to 12.00 and 13.35 to 16.05 or 17.00

The midday break is a minimum of 45 minutes.

UNITED KINGDOM

Year 190 days per year in three terms, with six or seven weeks holiday in summer, two at Christmas and two at Easter. Local authorities are free to decide dates.

Day Normally two sessions (morning and afternoon) each day; schools are kept open at lunchtime. Governors are responsible for the arrangement of lessons during the day, subject to legislation which prescribes a minimum of three hours instruction for pupils up to eight years old, and four for those over eight. In practice, those up to eight work for about 4 1/2 hours on average, and those over eight 5 1/2 hours.

Note New teachers' contract leaves open possibility of more flexible working (although this was not the reason for introducing it).

BUILDING IMPLICATIONS OF FLEXIBLE TIMETABLING "TEMPS MOBILE"

Summary of a presentation by Aniko Husti of
l'Institut national de Recherche pédagogique, Paris

An experiment with 'flexible timetabling'

An experiment with different types of flexible timetabling is being carried out at collèges and at lycées, while adhering to the curriculum and without altering the total number of hours worked by teachers, by pupils and in each subject (1).

Mobility and flexibility in the organisation of time are founded on the principle of an annual time-budget, which functions in practice through the setting-up of teams of teachers from different subjects who teach in units of three or four classes. The timetable is planned for all of the classes in the same unit but within a fixed framework. The teachers share the time allocated to them according to their needs and together plan the variations in the time devoted to different sequences during the day and during the week and decide on the desirable pace of learning in each of the subjects. It is thus the needs of the teachers and pupils which determine the timetable.

This transformation of the use of school time brings with it a profound change in the concept underlying the teaching/learning process. Notions of stability, immobility and uniformity, are replaced by those of mobility, openness and interaction.

The main building implications of flexible timetabling

1. A variety of learning situations demands a variety of spaces. Teachers are thus led to think about the use of space, and the way in which classrooms are laid out. Traditionally, the classroom being a fixed and immutable factor, teachers were never confronted with the need to think in terms of space.

2. Periods of work are frequently longer than the 40 or 50 minutes of the normal timetable. Pupils stay longer in the same place. The transition from an excessive parcelling-up of teaching and time, with constant changes, to a longer stay in one place, brings with it a new attitude. Pupils have the time to observe the space they are occupying, to get to know it and to use it; it is no longer an anonymous classroom.

3. The headteacher is obliged to replan the use of rooms. Each team of teachers needs a relatively self-contained block of classrooms.

4. Although the headteacher remains responsible for the use of time and space in the school, teachers are enabled to take a part in organising the time-table, which leads them to think about the way space is allocated and can be shared.

5. Pupils make more, and better, use of specialised accommodation (libraries, mediathèques, resource and documentation centres, computer rooms, etc.) than they do with the traditional timetable.

6. Pupils and teachers move around more frequently and less regularly during lessons which demands a change in behaviour on the part of pupils so as not to disturb those in other classes.

7. Two important changes concern small-group teaching, a feature of teaching/learning according to a flexible timetable:

a) The few rooms designed for it (where they exist) are no longer sufficient and small-group work in most subjects has to take place in the traditional classroom;

b) During a three- or four-hour session, different teaching styles are used, and it is necessary to be able quickly and easily to re-arrange the classroom.

8. With this method of flexible timetabling the size of groups can vary considerably. A teacher with a smaller or a larger group will accordingly need teaching spaces smaller or larger than the standard classroom. It is rare, even in a new school, to find the necessary range of rooms, and above all rooms the layout of which can rapidly and easily be altered.

9. The shape and layout of most existing rooms is designed for 'chalk-and-talk' teaching and not for practical work, group-discussion, role-playing games, etc.

10. There is a general lack of spaces for tape-recording, e.g. to add sound to a text, comments to a picture etc.

11. Teachers who work in a team must meet frequently: but there are rarely enough meeting rooms.

12. When pupils are working at their own pace, they can choose both how much time to devote to each subject, and where to work. Teachers and pupils acquire a new way of looking at time and space. They will be the more able to adapt to more wide-ranging changes in school organisation and to the demands of daily family and social life, which often evolve more rapidly than those of educational institutions.

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1. "Temps mobile", *Rencontres pédagogiques, Recherches/Pratiques*, 1985 No. 1, INRP, 126 pp. (ISBN-2-7342-0068-6).