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**Report**

The impact  
of examination  
systems  
on curriculum  
development:  
an international study

Christine De Luca  
Scottish Examination Board



United Nations Educational,  
Scientific and Cultural Organization

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International Association for Educational  
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Scottish Examination Board

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## *P R E F A C E*

Within the framework of its Programme and Budget for 1992-1993 (26 C/5), UNESCO's Section for Educational Research and Innovation (the Division of Higher Education) requested in 1992 the International Association for Educational Assessment (IAEA) to cooperate in undertaking an international and comparative study on the impact of examination systems on curriculum development.

The choice of the topic was influenced by an increasing internationalization of education in general and curriculum in particular that transcends national boundaries, and by a widespread interest in the relationship between curriculum development and examination systems. As the interaction between the two appeared to have positive as well as negative effects, both reinforcing and inhibiting curriculum development, it seemed meaningful to examine the matter comparatively under different education and curriculum systems.

At the suggestion of IAEA, the research assignment was entrusted to the Scottish Examination Board (SEB), which, in consultation with the Section for Educational Research and Innovation, prepared the present international study in the context of seven countries: Colombia, Egypt, France, Japan, Scotland, the USA and Zimbabwe.

While making this report available to its potential users, UNESCO's Division of Higher Education would like to express its appreciation to IAEA, the Scottish Examination Board, and to its Research Officer, Mrs Christine De Luca, the author of the study.

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Lastly, the views expressed in this report are those of the author, not necessarily those of the Scottish Examination Board.

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## CHAPTER 1. INTRODUCTION

### REMIT

In February 1992 the Scottish Examination Board was asked by the International Association for Educational Assessment, on behalf of UNESCO, to undertake a study of the impact of examination systems on curriculum development. The scope of the investigation was broad, from the level of policy-making down to the impact of examination systems on what is taught in classrooms and how it is taught. The emphasis was to be mainly, but not exclusively, on the secondary stage of schooling and information was to be sought from non-governmental organisations wherever possible.

While no particular purpose or audience was overtly stated in the remit (Appendix 1), the assumption was that this study would provide information and evaluative comment which might help decision-makers in the field of curriculum development or examinations; information against which the implications of particular policy decisions could be evaluated.

National barriers in the field of education are coming down. Teachers and students move between countries more freely; qualifications gained in one country are now more likely to be acceptable for entry into further study in another country. There is a growing awareness of common concerns and issues in education which transcend national boundaries: one such area in this growing international awareness is the relationship between curriculum development and examination systems.

### METHODOLOGY

No particular methodology for this study was imposed by UNESCO, but after discussion, it was agreed that the main sources of information would be:

a literature search, particularly in recent educational journals. Some educational systems were found to be documented much more fully than others, and the treatment of individual countries in the Country Reports reflects this variation;

press cuttings from reputable education correspondents;

the views wherever possible of officials in ministries, teaching organisations, bodies with responsibility for curriculum and examinations, educational research bodies, universities, teacher training bodies, and practising teachers. (This was to some extent an opportunity sample: only in Scotland could the sample be judged truly representative of all the multifarious bodies with an interest in education. This survey was considered essential given the central role of the Scottish Examination Board in the examination system in Scotland.) Questionnaires were devised for each of the countries involved in the study and translated into the language of each country (French, Spanish, Japanese) where this was considered advisable.

## SCOPE OF INVESTIGATION

### Geographical Scope

To give a suitably international context to the study, seven countries were selected and agreed with UNESCO. The seven, namely Colombia, Egypt, France, Japan, Scotland, the United States of America (US) and Zimbabwe were chosen to represent a reasonably wide range of geographical and historical backgrounds, cultural contexts, stages of economic development and systems of educational administration.

Colombia was selected partly because it is representative of countries in the middle ground of economic development. It also typifies countries moving from a centralised educational administration to a more devolved model. Egypt was chosen not only as representative of Middle Eastern countries, but also of those struggling to provide education for a fast-growing population. France was included as an example of a West European system, one with a centralised educational administration, and one in which a particularly prestigious examination (the *bac - calauréat*) has had an effect on the curriculum for a long time. The "*bac*", used as a model for examinations in other countries, at one time was a necessary and sufficient passport to a university education, but that is now changing. Japan was included, not so much as representing a particular geographical area, but because its educational achievements have been much admired by western politicians during the 1980s and 1990s. It is also an example of an examination-oriented system. Like France it has a centralised administrative structure, but with a larger private education sector. Scotland was chosen partly because it has a system of examinations run by the body undertaking the research, and consequently it could provide a well understood system against which others could be compared. It was also chosen because control of schools has recently shifted somewhat away from a devolved model towards the central government (the Scottish Office), particularly at the primary stage. Examination results in Scotland have recently been given an entirely new purpose, namely that of evaluating schools (or "audit"), and this may or may not have an impact on the curriculum. It would be difficult to miss out the USA in any study, given its size and influence. However many of the issues surrounding examinations and curriculum, and their relationship, are high on the agenda of US politicians, and feature widely in press reports. It is also an example of a highly devolved educational administration which is to some extent under pressure from the centre. It has neither a national curriculum nor a national examination, but issues of accountability in education show no signs of diminishing. Lastly, Zimbabwe was chosen to represent sub-Saharan, post-colonial Africa; a country moving towards a more indigenous form of education and examining. It also represents those countries attempting to expand their educational system against a background of economic difficulties and demographic pressure.

While these countries represent a wide range of educational contexts, it is recognised that large areas of the educational world map are, of necessity, under-represented.

### Conceptual scope

#### Examination system

In this study the term "examination system" is considered as a sub-set of assessment. It is confined to the assessment of cohorts, macro in scale. It could be on a district, region, state or nationwide scale, and be organised in a variety of ways. In some cases the examination system is run directly or indirectly by a government ministry (Colombia, Egypt, France, Zimbabwe). In Scotland external examinations are run by the Scottish Examination Board. It is a statutory body, established by Act of Parliament. In the US testing is run by a small number of large private agencies, while in Japan the sum total of the various tiers of entrance examinations provided mainly by receiving institutions



constitutes an examination system. Terms such as "external examinations", "public examinations" and "formal examinations" are frequently used, but none is quite synonymous with this somewhat broader definition.

The term is used to cover summative rather than formative assessments, and testing which takes place as part of "formal" learning, rather than out-of-school, on-the-job assessment. Most emphasis is given to examinations at the end of secondary schooling. It does not, for example, cover the more holistic approach to assessment embodied in Records of Achievement. Although qualifications gained from tests and examinations might be part of a Record of Achievement, its emphasis is, in large part, formative.

The term "examination system" as it is used in this study does not preclude particular types of summative testing, or particular purposes. It could, for example

- (a) be norm referenced or criterion referenced;
- (b) be fully external or a mix of teacher assessment and exams;
- (c) employ a range of assessment instruments eg objective items or questions requiring candidate-constructed answers;
- (d) serve a range of purposes. The primary purpose is the measurement of attainment (or aptitude) of individual candidates. Such measures could be used

to underpin certification, graduation or accreditation procedures at the end of a course;  
to allocate pupils to classes or courses, ie

promoting pupils to the next class (but not screening for special programmes; not diagnostic tests);

selecting pupils for the next stage of schooling eg primary to secondary; regulating the flow of students to Higher education, jobs or training opportunities;

to monitor educational "outputs", ie for accountability or "audit" purposes. This might include evaluating schools and teachers, and achievement of cohorts. This relatively new and somewhat controversial purpose has been "bolted on" in different ways to existing examination systems in several countries. (The study does not however include monitoring the achievements of cohorts on the basis of a sample of pupils from a sample of schools, as for example the National Assessment of Educational Progress (NAEP) in the US.)

As time goes on, exams instituted for one purpose can come to be used for another purpose, and to some extent, as Eckstein and Noah (1992, p 5) point out, examinations have become increasingly multi-purpose.

This can be seen in the context of Scotland: the (subject-based) Higher Grade examinations, traditionally taken at the end of five years of secondary schooling, served the dual purpose of certifying achievement and controlling access to Higher Education. However, more recently, the Higher Grade results have been used as a major component of the Standard Tables, an evaluative tool conceived by the Scottish Office Education Department and now used by schools, regional administrators and policy-makers at

national level. (Any change - and such is imminent - to the Higher Grade will have curricular implications.)

As time goes on, even if the curriculum were to remain static, the candidature would be unlikely to remain static. This change provides a further impulse for change and evolution within the examination system. Greater participation rates and the moves to a wider range of provision, and the expansion of vocational education have all put pressure on examination systems (such as the French *bac*) to evolve and change.

Examinations can be levers for curricular change or obstacles to it (Eckstein and Noah. *op cit p 19*). The change could be viewed as positive or negative. What is not disputed is the potency of an examination to bring about change. Research is consistent in demonstrating that as scores on the tests or examinations used tend to increase, scores on other measures tend to decrease (Darling-Harmond (1988)); this could occur, for example, where assessment of the theoretical aspects of a subject is more thorough than the assessment of the practical aspects, or where those aspects of a subject which can be tested most easily are given prominence in the assessment. What is measured will affect what is taught, and to a large extent, what is valued in the schooling process.

Policy and practice in relation to examination systems are under review in many countries. An examination system is a lever of considerable power: it can lead to change in the balance of control in the whole education system.

## **Curriculum development**

### Curriculum

Many books have been written defining the curriculum in narrower or broader terms. For this investigation, the definition of curriculum is to an extent broad in that it moves through layers of meaning from curricular policy down to the teaching and learning situation. But it is also narrow, given that it is the examined curriculum which is the focus of the study. It is the formal, cognitive, curriculum rather than the "informal" or indeed the "hidden" curriculum; that which teachers intend to communicate or teach, with an awareness that pupils will be tested in it at a future date; a coherent and manageable core of learning which contains the knowledge, understanding, skills, ways of knowing and practical competencies needed to function autonomously in society, and which reflect the underlying aims of education and broadly accepted values of the society in question. While most attention is given to what could be termed general education usually the main focus of summative examinations - vocational education cannot be overlooked.

In all seven countries, at secondary level, the curriculum is largely subject-based, while the degree of subject specialisation at the primary or elementary stage is more varied in relation to the age or stage. It is stated at various levels of detail, such as subjects to be studied or credits to be gained. Within individual subjects, it can be stated in the form of broad aims, objectives, attainment targets, learning outcomes or programmes of study. It is sometimes accompanied by explanation or guidance, or more particularly a sequence of teaching, suggested time allocations or descriptions of expected performance levels. The level of prescription varies considerably between the seven countries, with perhaps Japan and France having the most prescriptive curricula.

### Curriculum development

Curricula tend not to remain static for very long. It would appear that innovation and change, or in its most extreme form, curricular reform, are almost endemic, and occur

for a variety of reasons. The main reasons for curriculum development, in the context of this study are: the explosion *of* knowledge, and economic and technological change;

new subjects competing for space in the curriculum (eg technology, computing, health education, media studies), and the consequent need to rationalise the curriculum *for* individual pupils;

new slants on, or emphases in, existing subjects or new combinations of existing subject matter reflecting changed perceptions eg European studies, environmental studies;

new knowledge within existing subjects: desire to augment (or even replace) knowledge-based curricula with more process-oriented curricula: ie finding relevant knowledge; developing subject-based skills ("process" skills); solving problems; thinking critically; learning how to learn; new pedagogical approaches linked to changing attitudes and values in society;

the desire to improve access to the curriculum for a wider range of pupils: consequent need for differentiation within the curriculum; Lawton (1978) noted the general tendency for industrial countries to move away from an elitist view *of* society to a more egalitarian view and more equality *of* opportunity.

Lewy (1991) describes the worldwide curricular movements *of* the late 1950's and the consequent development *of* institutions by central educational authorities and/or other publicly supported foundations. He also describes the strong counter-movement which emerged in the 1980's to challenge this top-down model of curriculum development. This was the school-based curriculum development movement. While these two arenas of curriculum development are not necessarily incompatible, Lewy comments on the confusion which ensued, most particularly in developing countries with poorly developed national curricular structures.

It would appear that curricular development, if not upheaval, is a worldwide phenomenon, which can occur at a variety of levels within the teaching/learning environment. It is frequently linked to educational policy-making, and therefore exists on the "political" edge of the curriculum. Given this position, the value and acceptability of a particular curriculum development could tend to be viewed as "good" or "bad" depending on who was considering it.

## **RELATIONSHIP OF EXAMINATION SYSTEMS TO CURRICULUM DEVELOPMENT: INITIALHYPOTHESES**

Examination systems interact with curriculum development in a variety of ways: some effects could be described as benign or positive; others could be described as negative.

In order for examinations to have a **positive** effect on curriculum development it would appear that several conditions have to be met. The extent to which these conditions are met can vary, as can the resulting salience of the effect. These conditions are, that:

the curriculum development is perceived as generally beneficial (for example by giving emphasis to skills previously ignored, or making better provision for *pupils of* all abilities);

teachers are motivated to accept the changes and are not over-burdened;

the examination is valid and reliable, and does not exert undue influence on teaching method; there is good articulation between the curriculum development and the examinations;

the distribution of influence between bodies responsible for the curriculum and for the examinations is equitable. This would mean, for example, that the examination could not hinder or subvert curriculum innovation.

If all of these conditions are met, then the positive effects of examinations on curriculum development can be considerable. These positive effects include:

speeding or ensuring reform of the total curriculum or a sector of the curriculum (eg indigenising a curriculum in a post-colonial country);

speeding or ensuring the uptake of new subjects, or new subject matter within an existing curricular structure; speeding or ensuring the introduction of new teaching methodologies;

elevating the status of a subject which previously may have been non-examined (perhaps non-academic or vocational). Legitimising particular knowledge or skills (eg practical knowledge, craft work, physical education); clarifying a curriculum innovation: describing clearly what is expected;

providing feedback on attainment on individual students and groups of students and consequently helping to raise standards.

Conversely, examinations can exert **negative** effects on curriculum development. Again, conditions can alter the potency of this effect. These conditions are that: the examination is technically flawed;

the examination is given particular emphasis, (for example becomes "high stakes" for individual pupils or for schools or districts); the examination is poorly articulated with the curriculum development;

the distribution of influence between bodies responsible for the curriculum and for the examinations is inequitable;

the teachers wish to and can resist the changes, for example if the change would require unreasonable workloads.

Any one of these conditions might undermine an otherwise educationally-sound curriculum development. Ways in which this might be manifested include:

slowing down or inhibiting curriculum development (at the level of total curriculum reform, reform at a particular stage, of a particular subject or subject matter);

subverting curriculum development; distorting the curriculum (by teaching to the test) if it is not well matched to the curriculum in terms of content, types of knowledge, ways of knowing, learning strategies;

constraining how the curriculum is taught, and hindering the development of new teaching methodologies;

over-emphasising the status of some subjects at the expense of others. (In France, for example, despite revision of the *bac*, mathematics and science *bacs* continue to have high status for university entrance purposes in comparison to philosophy and literature.)

Although perceptions of the relationship between examination systems and curriculum development would be unlikely to be uniform, given the range of contexts within which they occur, it is possible to hypothesise that the general relationship between them is as follows:

- 1 The overall effect of examinations on curriculum development depends on the broad acceptability of each component, and also on the degree of match between them. Thus a well-received curriculum development could be undermined or distorted by a technically poor examination, by an examination which did not articulate well with it, or by an examination system which lacked coordination (where for example pupils were over tested). On the other hand, a technically sound examination, well matched to its curricular objectives, has the potential to reinforce an inappropriate curriculum development. The scope for bad practice is therefore considerable. However it is asserted that a good examination system can have a positive effect on curriculum development if the two components are individually well constructed, articulate well and engender the confidence of pupils, parents and teachers.
- 2 The relationship of the two components is also affected by the distribution of influence or power between those bodies responsible for curriculum development and examinations. One or other could have more influence; influence could be equal and balanced but the channels of communication between them - both formal and informal - might be limited; or influence could be reasonably equitable and relationships between the bodies responsible could be cooperative and consultative. The nature of the relationship of both bodies to central government ministries is crucial, as is that with other bodies with vested interests such as universities.
- 3 The role of the teacher in curriculum development and examinations is yet another factor, for example whether changes are imposed or whether some consultative, or indeed participative role is the norm.

More general effects on the curriculum (rather than the narrower area of curriculum development) are also noteworthy. These too can be positive or negative. Positive effects of examinations on the curriculum in general are:

raised standards through motivation of teachers and pupils;

a clear statement of standard required;

a common goal for pupil and teacher to achieve.

Negative effects of examinations on the curriculum in general are:

reduced time available for delivering the (increased) curriculum;

reduced subject choice for individual: pupils where electives are available since perceptions of subject examination difficulty can affect subject choice;

increased alienation of low achievers, unless they are specifically catered for;

increased uniformity/conformity (eg stifling of mother-tongue curriculum development or local curriculum initiatives);

increased emphasis on the easily-measured aspects of learning at the expense of the more qualitative and social aspects of learning; increased control over the curriculum by the demands of the examination.

Change is constant, and indeed change which is judged positive can, at a later date, become an obstacle to further change. A curricular innovation or assessment method which is novel in one country can of course be common practice in another country. However, the main question which has to be addressed appears to be "what are the aspects or attributes of examination systems which appear to affect curriculum development in positive ways, and conversely what conditions encourage negative effects?" Some potential aspects might be:

the perceived importance of an examination; whether or not it is a "high stakes" examination with life chances, or perhaps school-funding depending on a particular result. In some cases this might help speed up curricular reform, but in other cases it might encourage "teaching to the test", ie curricular distortion; the technical adequacy (validity and reliability) of the examination;

the extent to which the bodies charged with curricular and examination responsibilities are able to, and do indeed, cooperate constructively. This in turn will determine the extent to which curriculum development and examination reform have been planned together and complement each other;

the extent to which the process of policy-making in the areas of curriculum development and examinations is consensual rather than imposed upon teachers and parents:

the extent and quality of feedback about examination performance to teachers - sometimes called the "transparency" of the system - and the use made of such information, for example in the area of in-service training.

In an article on curricular change called "Competing in a Global Market" which appeared in the (UK) Times Educational Supplement (TES) (16.4.93), is stated

*"It used to be said that detailed assessment was unnecessary if a country had a well-established national curriculum. Only countries which had none - like Britain - had to go in for a rigorous public examination system to make sure that pupils had learned what was necessary. Today, England and Wales find themselves with belt and braces - a detailed legally-binding curriculum, and an all-pervading external assessment system as well. "*

It would appear that this is not an unusual situation in the 1990s. Curricular freedoms appear to be diminishing in countries such as Scotland and the US where traditionally examinations were the main quality control mechanism; and examination systems appear to be under little threat in countries with more centralised curricular control such as France, or Japan. (However the idea that a golden age of curricular freedom once existed is perhaps illusory: where the curriculum is unspecified, experience shows that teachers are less than willing to use such freedom.) There would appear to be a desire on the part of policy-makers at national level to have greater national standardisation in curriculum, and more often than not this is attempted by making changes in the examination system.

In responding to Broadfoot's advocacy of Records of Achievement, Joan Knapp of ETS (Eckstein and Noah, *op cit.* p 91) suggested that we have entered an era that can be described as "beyond

examinations”: this seems doubtful! Sweden is one of the few countries which, having abolished external examinations, has not as yet re-instated them.

This research straddles two of the big issues of current educational debate, namely the degree of autonomy which should be left to regions, communities and institutions (in Lewy’s opinion this debate is particularly pertinent in the area of curriculum development (*op cit.* p 7)), and the role of examinations viz *a viz* the curriculum. In particular, there appears to be growing concern for the quality of the entire educational process and for control of its results (*op cit.* p 5). To this end, examinations as indicators of this quality appear to have been given a major role.

Eckstein and Noah (*op cit.*, p 147) assert that

*“one of the potentially most powerful mechanisms for achieving change in education is the external examination system, especially examinations taken towards the close of secondary schooling.”*

They also argue that, despite the adaptability of examination systems, and the changes which occur, the underlying social and educational significance of the examinations often do not really change (p 148). In Scotland, for example, the Higher Grade has endured for more than a century, and in Russia, despite massive political change, oral examining has endured from the time of Tolstoy to the present day.

## EDUCATIONAL CONTEXTS

Curriculum development and examination systems exist and inter-relate within a broader educational context in each country. The country reports will describe these contexts. Nor can the web of societal influences on education in general be ignored: where necessary, the reports will highlight particularly salient factors. Some examples of these types of background factors are:

- \*Geographical In Colombia much of the terrain is inhospitable tropical forest: in Zimbabwe the lack of infrastructure hinders educational development in rural areas, and the severe droughts of recent years have reduced the GNP available for education;
- \*Historical Colombia, and more recently Egypt and Zimbabwe have inherited what has been called a post-colonial educational “vacuum” (Roy Singh, 1990). The main features of such vacuums are adult illiteracy, and relatively low participation rates in basic education;
- \*Socio-economic Egypt and Zimbabwe have had relatively high population growth rates (2% or above per annum) for some time: the demographic pressure on the education system is therefore great. A net population decline in Scotland on the other hand has meant that curriculum change has been happening against a background of school rationalisation and a lack of opportunities for young teachers to enter the profession. A rise in youth unemployment has led to a marked increase since 1980 in the number of pupils staying-on beyond the period of compulsory schooling;
- \*Political All but Zimbabwe and Scotland have had changes in government in the early 1990’s, and consequent changes in policy. In some cases change is minimal (eg Japan), but in Egypt for example, a change in Education Minister can have far-reaching effects. In some countries education policy and planning is more directly

linked to economic and social goals than in other countries. In Japan and Egypt for example the link is reasonably explicit;

- \*Cultural Schools necessarily reflect the society and culture in which they are embedded. Cultural norms about, for example, the funding of education or perceptions about individual effort vary considerably between and sometimes within countries.

Educational priorities vary considerably between the seven countries, given such differences in circumstances. In the developing countries the emphasis is necessarily upon such aspects as basic education for all, development of a national system of education, improving participation rates, and tackling adult illiteracy. In the developed countries priorities are more related to making qualitative improvements in the system, monitoring outputs and meeting changes in manpower requirements. There is however a detectable movement towards a more homogeneous set of aims. De Babina (1991) described this as a move to a

*”new international model for education which is expected to be democratic, relevant, lifelong, flexible and undifferentiated.”*

It is against such a varied backdrop that this study of the impact of examination systems on curriculum development has taken place.

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## CHAPTER 2. COLOMBIA

**This chapter was contributed by W D Cousin, Senior Consultant, Dunedin Language Consultancies, Ibague.**

### BACKGROUND

#### *PHYSICAL*

Colombia is a predominantly Spanish speaking country situated where the narrow neck of Panama in Central America opens out to the countries of South America. Its land mass of a little over one million square kilometres makes it approximately 4 times the size of the United Kingdom or of a medium sized member of the United States such as Colorado and one ninth the size of the United States as a whole. However, almost 60% of this land mass consists of the sparsely populated, jungle-covered plains of the Orinoco and Amazon river basins. while the desert region of the Guajira, bordering Venezuela in the North West and the Pacific coastal region also have few inhabitants.

Much the largest part of Colombia's population of 34 million live on the 3 Cordilleras of the Andes mountains, where 3 of the principal cities are to be found. These are Bogota, the capital. with approximately 6 million inhabitants, and Medellin and Cali with approximately 2 million each. According to the UNESCO World Education Report of 1993 (UNESCO 1993) 70% of the population is urban, one third or around 11 million, living in 11 cities around or above the contour of 1000 metres in altitude. This geographical diversity is acknowledged by the designers of the recent survey of school effectiveness carried out by the new National system of Educational evaluation (Saber 1993a p 32).

However, to this geographical diversity should be added, in common with many countries at similar stages of development, extreme diversity in economic resources. As is common with calculation of GNP and per capita income, different bases - such as exchange rate - tend to give different results. The Colombian Ministry of Education's statistics (*Anexo Estadístico*, 1991) give GNP over the last 15 years based on the value of the *peso Colombiano* (Col\$) in 1990. On this basis, the Ministry's figure for per capita income for 1993 works out as only US\$1058, which is lower than the figure given by UNESCO (1993) OF US\$1240. However, whatever the income, it is very unequally distributed. According to UNICEF (1993), the bottom 40% of households control only 13% of household income while the top 20% control 53%. This distribution of wealth is the least egalitarian of the seven countries in this study, as shown in the following table.

**Distribution of household income**

	% total household income	
	lowest 40% of households	highest 20% of households
Colombia	13%	53%
Egypt	21%	41%
France	18%	41%
Japan	22%	38%
Scotland (UK figures)	17%	40%
USA	16%	42%
Zimbabwe	NA	NA

The position in Colombia described in the report prepared for the 43rd International Conference on Education of UNESCO in 1992 (MEN 1992) is grim. It defines a group of the very poor as those with Basic Needs Unsatisfied and calculates that "this accounts for 45% of the population of whom nearly 50% are in a state of destitution."

In view of this wide divergence in physical and social conditions it is necessary to treat with some caution the descriptions of education provided in this and some other reports. An example may serve to make the point. In the report referred to above (MEN 1992) the department of educational planning in the Ministry indicates that the new constitution of 1991 envisages compulsory education of 9 years of 'Basic education', 5 primary and 4 secondary. However, Professor Herrera of the University of Antioquia, in responding to this investigation, has commented that this pattern currently has to co-exist with earlier patterns in which only primary education was compulsory. The statistics for participation in secondary education provided by a SENAHolland study of human resources in Colombia (Anexo Estadístico 1991) show a marked decline from around 85% in primary to only around 40% for secondary in 1990, while in the remoter parts of the country listed as *Territorias nacionales* (ie *Intendencias* like the Caribbean islands of San Andres and Providencia, and *Comisarias* like the Amazonas) the participation in secondary falls to 26% (*Anexo Estadístico*, 1991). This suggests that the pattern of compulsory education envisaged by the new constitution may indeed take some time to be established in the remoter areas of the country. Much of the discussion of educational provision in the country may be focused on what is achieved and achievable in the more developed parts of the Andean region but this may not be valid even for the less privileged parts of the main cities.

**HISTORICAL**

It is perhaps worthwhile to prefix a historical note to the description of the functioning of education in Colombia. Colombia has been an independent country for over 170 years, and if there are certain evidences of a "post colonial educational vacuum" (see above p 9), the reasons for this would be worthy of further examination.

Nieves (1989 Chap 1) traces the development of the system of examinations in Colombia from its inception which he identifies in 1540. The chief influence on the system was from the Catholic church of the colonial power, Spain. After independence in 1820, influence came from various foreign educational systems, to begin with from Europe, the France of the Revolution and England, and later from the United States. An interesting aspect of the earliest legislation of the

newly independent Republic of Colombia in 1820 was its commitment to education as a foundation of democracy (the text of the 1820 law can be found in Perozzo 1986 p 147!). This commitment is reiterated in the 1991 revision of the Constitution (Article 67).

If the achievements of Colombia in the field of education did indeed lag behind those countries from which it hoped to derive models, it may be fair to point out that these countries themselves, with the possible exception of the United States, could not boast of very enlightened systems during the last century. However, the most likely source of underdevelopment in education must be looked for in the unsettled political situation. Speaking of the whole of South America, Rama 1987 comments (p 151)

*"The long period of civil wars with its negative effect on the organisation of the state and the establishment of fiscal budgets worthy of the name, the limited development of production and the maintenance of traditional patterns of social domination and class culture, impeded the realisation of the proposals for educational expansion planned by some of the leading representatives of the movement for independence. "*

With its fair share of periods of actual civil war, Colombia has remained politically very volatile right up to the present struggles with guerrillas and drug dealers.

#### **MAIN FEATURES OF THE EDUCATIONAL SYSTEM: AGES, STAGES, TYPES OF SCHOOL AND PARTICIPATION RATES**

The fundamentally democratic nature of Colombia's political system was secured by the constitution of 1886 and the recent 1991 revision moves towards greater participation and devolution from the central government in Bogota. The Ministry of National Education is responsible by law (most recent laws being Law 24 of 1988 and Law 29 of 1989). These laws require the assent of both elected chambers of the Congress (Senate and *Camera de Representantes*) and the signature of the president. The Ministry regulates the administration of education throughout the country by decrees and resolutions (eg Ministerial resolution No 17486 of 1988 based on governmental decree No 1002 of 24 April 1984 authorising the Ministry to regulate the evaluation of school performance.)

Education in Colombia is going through a process of profound change. There is a marked difference in tone in the account of Educational Development prepared by the Ministry for the International Conference of UNESCO in 1990 (MEN 1990) and that for 1992 (MEN 1992). In the former there is a clear framework of development based on the laws of 1988 and 1989, and a courageously critical review of the problems largely due to underfunding. In the latter there is much more emphasis on the general aims of the government following the New Constitution and a review of the framework of institutions which may be charged with achieving them.

The government of President Gaviria, elected in 1990, has proposed a four-year Plan for the Opening up of Education (*Plan de Apertura Educativa*) reflecting its basic commitment to market forces and opening up of the economy. The framework for the reform of Higher education has already been put in place by Law 30 of 1992 (*El Tiempo* 30 April 1993). A new general framework law for education has been proposed but has proved contentious and is taking time to be approved by the Congress (*El Tiempo* 17 November 1992).

The Constitution of 1991 in Article 67, envisages compulsory education between the ages of 5 and 15 - one year of "pre-escolar" or kindergarten and 9 years of Basic Education. Basic education consists of 5 years primary and 4 years secondary. This is continued on a non-compulsory basis for a further 2 years of "Middle vocational schooling" (*Media-vocacional*) which results in the "bachillerato" or *baccalauréate* school leaving certificate. Those selected on the basis of performance on the national leaving examination can pass on to tertiary education.

The Constitution declares that education in state schools is in principle free but it leaves the door open for the possibility of private education or possibly some form of means testing within the state system (Article 67).

The main variations in types of schools at the primary level come from the need to provide for schooling in the rural areas. This has led to the introduction of the "New School" (*Escuela Nueva*) - basically, single class multi-level teaching, with curricular implications (which receive attention below, under curriculum). Otherwise provision is fairly uniform in a system which is dominated by the State sector. The total participation rate for the primary level is 83% (MEN 1992). Of these 85% attend State schools.

At the secondary level, there is a much wider variety of institutions partly, no doubt, due to the wider representation of the private sector. The private sector provided in 1991 almost as many schools as the public sector (3,049 as against 3,920 - MEN 1992). Many of these schools are inheritors of their own traditions (*gimnsasia, liceos, various colegios bilingues*, with strong French, German, English and Italian influences) while of course, many, as in the primary sector, are church foundations. The participation rate of only 56% (1991 figure MEN 1992) reflects the comparatively recent move to universal and compulsory provision at the secondary level.

The Ministry report to the UNESCO International Conference on Education for 1990 (MEN 1990 p 55) includes comments on the current situation of infrastructure. 93% of teaching facilities at primary level belong to the state, but though the number of buildings and classrooms appear sufficient they may be inconveniently situated especially in rural areas. The report notes that only some 46% of the buildings can be considered in a good state of repair. Amongst deficiencies in plant the report notes that only 3 % of primary schools have libraries.

At secondary level, many of the private schools bring their own dedicated buildings though not necessarily prepared for contemporary use. The Ministry report (*ibid*) notes "*With regard to laboratories and workshops for physics, chemistry, sciences, biology and languages, their inadequacy is dear.*" Other comments in the same report are that 65% of classrooms at secondary level are in need of repair.

The report mentions (p 56) the problem of the availability of text-books. Though it gives no figures it comments "*This is one of the deficiencies most keenly felt and an obstacle to achieving a better quality of education.*"

The organisation of school attendance is arranged to make maximum use of the plant available with a two shift day; a morning school from 7 am to 1 pm and an afternoon school from 1 pm to 7 pm. The same school buildings often then house night schools from 7 pm till 10 pm. These night schools are often providing secondary education for early leavers making good their education while working.

The Ministry plans make provision for substantial investment in plant during the period 1991-95 to take account of the expansion of secondary education (*Anexo Estadístico 1991 Padre 33*). The total economy is expected to grow during this period thus securing a larger total expenditure on education from the same proportional rates but it remains the case that the proportion of GNP spent on education at 2.4% (1991 figure) is low in absolute terms and actually projects a fairly steady decline over the period from just under 3% achieved in 1984 to little over 2% for 1994 (*Anexo Estadístico 1991 cuadro 23*). This decline must be set against a population growth rate which, with an average of 1.9% between 1980 and 1993, is still relatively high (UNESCO, 1993).

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## THE CURRICULUM

*The basis for this section lies in the literature quoted in the bibliography. However, in the absence of sources specifically dealing with the topic of this study, it was decided to circulate a questionnaire to a number of respondents considered appropriate. These included, the Ministry and the body responsible for the state examination system - the Colombian Institute for the Furthering of Higher Education (ICFES). It also included Universities in the main cities and other official organisations such as the main teacher union for teachers in the state sector, the Colombian Federation of teachers (FECODE). Responses were also received from a number of other groupings:*

*CONACED, an Association representing some 1,400 private institutions, mainly secondary and church;*

*Groups concerned with Mathematics and Research meeting under the auspices of the Pedagogic Movement (Movimiento Pedagógico) based in the capital Bogota;*

*Teachers of Social Studies attending a seminar in the Pedagogic University of Bogota, February 1993;*

*Teachers, over 100, mainly of language, attending a seminar of the Colombo-American Institute in Bogota in August 1993.*

*A number of other independent educational experts were consulted, chief amongst whom was Dra Clara Franco de Machado, former head of the Curriculum division of the Ministry of National Education, Director of Training in the Special District of Bogota, and currently educational adviser with the International Labour Organisation.*

*This clearly could not, even in intention, lay any claim to be a representative sample. The aim was rather to seek expert opinion. The response rate was 62%. Variation in the figures quoted are explained by the fact that not all respondents replied to all questions. Unfortunately the response was overwhelmingly from Bogota. This should underline the caution already made about the generalisability of any findings. Some of the results are included here as useful supporting data and indications of directions for further research.*

## CONTROL OF THE CURRICULUM

Under Law 24 of 1988 the Ministry of Education was restructured to *Strengthen its functions of direction, planning, design, evaluation and control* (MEN 1990). The Ministry was required to oversee all curricular matters while the Educational Secretariats of Town Councils (*Alcaldías*) and Departmental Administrations (*Gobernaciones*) were required to administer the teaching cadre. The Ministry has from 1984, and the inception of the process of Curriculum Renewal (*Renovación Curricular*), been responsible for publishing syllabuses in the main areas of the curriculum. These main areas of the curriculum are clearly spelt out by the compulsory state examinations of the ICFES at the end of secondary schooling. The examinations include Physics, Chemistry and Biology, Verbal Aptitude, Spanish Language and Literature, Mathematical Aptitude, Mathematical Knowledge, "Social Sciences" (approximately equivalent to History Geography and "Civics") and an elective which is worth 20% of the total marks. This has to be selected from the following: Abstract Reasoning, Spatial Relations, Mechanical Reasoning English, Knowledge of Pedagogy (for students preparing to be primary teachers through the *Bachillerato Pedagógico*), Knowledge of Farming, Commerce and Accountancy, French Metalwork, Electricity and Electronics, Health and Nutrition, Art, Civil Construction, and Community Work.

Given the inclusion of unexamined areas such as Ecology and the fact that ambitious secondary schools often prepare pupils for several of the electives, their programme often becomes very crowded.

From their inception the syllabuses - or programmes of study - have been attacked by teachers, perhaps inevitably, as an unwarranted and alien imposition. They were seen as imposing teaching methodology and, relevant to this study, related evaluation. Quiroz (1985) comments:

*Teaching becomes atomised, separates into a series of fragments each of which is going to contain objectives, activity and assessment. ”*

Responses to this study were unequivocal. Teachers both at primary and secondary level. feel constrained by the Ministry work schemes and have little leeway in what is taught. The responses to the question "How much freedom do teachers have/take in matters affecting the curriculum?" are shown in the following table.

**Responses concerning degree of curricular freedom**

	Number of response	
	at primary/elementary stage	at secondary/high school stage
none	17	18
little or none	16	18
some	4	6
poor or very poor	4	4
relative/can be organised	3	8
fair amount	3	3
plenty/much/ample	1	2
total freedom	2	2
	<u>n= 50</u>	<u>n = 61</u>

For many subjects the syllabuses are incorporated into texts published by independent publishing houses. Teachers can choose between these texts and they receive overwhelming endorsement in our study as very useful. However, the restrictive effect of the existence of these text-books is also supported by the prepotterance of "lessons based on text book guides" amongst the teaching methods employed.

However, with regard to the degree of actual control exercised by the Ministry it may be worth recording the evidence of Dra Clara Franco in her response to this study

*"One must distinguish between what is set down in official documents and what actually happens, as, in practice, the dissemination of syllabuses and documents is not sufficient to reach all the teachers in the country. ”*

*MA determining factor in the "freedom" of teachers to develop the curriculum is their degree of training, which varies greatly between regions of the country, the schools and social groups. ”*

The aspect of teacher training receives attention below.

**Curriculum Development**

Colombia has seen many curriculum developments in the recent past, many reflecting the "international agenda" supported by such organisations as UNESCO. Examples would be the move to Universal Primary Education and the attack on adult illiteracy. But there are other influences on curriculum development which betray external origins. The New School project

originated with UNESCO but received a major impulse from USAID (Reimers 1993), while there has been strong US influence through the development of testing services with help from the Educational Testing Service (ETS) of the USA (ICFES, 1992). ETS has also been involved more recently in advising on the newly instituted Ministry system of evaluation of educational effectiveness entitled SABER. Another recent example of external influence would be the COFE-ELTO project funded by the British government to support curriculum development in the teaching of English.

A list of the curriculum developments between 1978 and 1992 appears in the first Document of SABER (SABER 1993 a p 17). It lists programmes which formed part of the Plan for the Improvement of the quality of Education such as:

*Renovacion Curricular*

*Escuela Nueva Supervivir* and the Program of Family Education and Child Development (PEFADI)

The introduction of the National Institutes of Middle Vocational Education (INEM)

The Auxiliary Centres for Teaching Services (*Centros Auxiliares de Servicios Docentes - CASD*)

Automatic promotion and in 1989 the "flexibilisation" of the Curriculum

This last is explained in Chamorro (1991 p 37 ff).

*"The educational process has to be organised according to the real state of the country, that is to say, it has to take into account the needs and interests, the aspirations and characteristics of the pupils and their environment .... In our country each region has its own ... characteristics... If the problems are not the same neither are the solutions. From this stems the necessity to promote participation with a view to finding specific solutions. The flexibilisation of the curriculum is evidenced in the process of identifying and formulating the problems, and in the efforts made to find solutions. "*

The concept has prompted an interesting series of articles in *El Tiempo* (starting on 18 October 1993) in which it proposes to examine the main needs of each area of the country. The curricular problems inherent in this development are returned to below.

The New School has a long history of development from the Unitary School promoted by UNESCO in the 60s to a major relaunch in Colombia as the *Escuela Nueva* in 1975 with financial support from USAID. The essential curricular development is concerned with the teaching/learning methodology. To meet the problem of small rural schools catering for various educational levels with one or two teachers, the unitary school set out to *Mallow the teacher to work with more than one group of students at the same time.* " (Reimers 1993, p 7 footnote).

Reimers, in his enthusiastic account (*op sit*) observes that the curriculum component

*"promotes active and reflective learning, the ability to think, analyze, investigate, create apply knowledge and improve children 's self-esteem. It incorporates a flexible promotion system, and seeks the development of cooperation, comradeship solidarity, civic participative and democratic attitudes. "* (quoted from Colbert et al 1990)

He mentions the success of the programme including an account of "Massification." From 500 schools in 1978, the programme passed to 2000 by 1982 and 17,948 by 1989. Whether the target of universalization with some 41,000 schools by the mid 1990s will survive the *Plan de Apertura Educativa* remains to be seen. Reimers (*op cit*) quotes an undated study (Parra et al) which suggests that *"many schools which are under the Escuela Nueva plan have not in fact adopted the model."* One has to bear in mind Havelock's (1971 quoted in White 1988) illustration of the way

in which innovation takes place against a social background. Some developments may have to await a more general development in the host society before they are totally established.

Another example of substantial curriculum innovation which has achieved a degree of international notice may be found in the introduction of the INEM. These secondary comprehensive schools were instituted by the state sector in 1975 and between 1975 and 1979 19 schools were built (Psacharopoulos and Woodhall 1985 p 197). Besides the benefits of size the state hoped to extend educational opportunities by making available a substantial vocational element alongside the traditional subject areas. Students following an "industrial" strand, for example, would be able to attend hands-on technological training in the Auxiliary Teaching Centres (CASD) (Psacharopoulos 1988 p 260).

The evaluation of this development is somewhat ambiguous. In the 1985 publication (Psacharopoulos and Woodhall 1985) we find a fairly definite conclusion that the INEMs were effective in raising achievement levels in the groups at which they were aimed. *"The final conclusion is that INEM schools do boost pupil achievement, though in some subjects they also have higher costs. In some cases, therefore, curriculum diversification can increase the internal efficiency of secondary education."* (op cit p 231).

However, in his 1988 paper, on examining evidence for the employment history of INEM graduates, Psacharopoulos comes to the conclusion that the INEMs do not justify their higher costs. He writes (op cit p 276)

*"The results of the study indicate that the .... --objectives of diversification were not met, and that the expense of the diversified schools was considerably more than that of the conventional academic schools. In particular, evidence from the study implies that diversified school students who continue their education are more likely to be found studying in a completely different subject area than the skill area in which they received their pre-vocational training, that graduates from diversified secondary schools do not find employment more quickly than graduates from conventional schools, and that graduates from diversified schools do not demonstrate higher initial earnings than those from traditional academic schools. These findings, along with the substantially higher costs of diversified schools, require the educational policy-maker to be far more cautious in the future about adopting such educational reform."*

One would hesitate to challenge the argument constructed but it seems sad that a type of school that has proved effective at raising achievements, and, above all, opening up opportunities to those who are generally acknowledged to be from the lower income brackets, should be abandoned on the grounds of cost effectiveness. In any case, it is not clear that the evaluations made take into account the conditions of the country at the time. For example, one might suggest that it is too early to reach conclusions about entry to the labour market of vocationally-trained students, when the secondary sector is still dominated by private schools with established traditions, and employers may be more influenced by their academic reputations rather than any more technical qualification. The rapid development of the country might bring big changes to the labour market.

The *Renovacion Curricular* and Flexibilisation of the curriculum are much less clear cut developments which receive attention below.



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## THE EXAMINATION SYSTEM

### National Examination Service

State examinations are the responsibility of the National Examination Service (SNP) a division of the Colombian Institute for the Furtherance of Higher Education (ICFES), which in turn is a government-funded body reporting to the Ministry of Education. The service was set up in 1964 with the help of the Educational Testing Service (ETS) of the United States (ICFES 1992). It has various validator functions but for the purposes of this study its most important function is the twice yearly examinations for entry to Higher Education, compulsory since 1980 (op cit p 7). In 1992 more than 300 000 students took this examination (ICFES op cit p 17). The SNP also administers state examinations for the validation of primary education but with only a little over a thousand users (op cit p 17) this is of little significance. Where there is selection for secondary education it is based on local examinations.

There is little disagreement that the examinations at the end of secondary education are of key importance in the education system of the country. The ICFES response to this survey stated they aimed to "supply homogenous information to institutions of higher education so that entry is open to those who, in exercise of equal opportunities, show that they have the necessary capacities and fulfil the academic requirements in each case." Students graduating are classified according to their grade-point average in the tests, and various areas of higher education can require higher or lower averages for entry to their courses. The prestige of the institutions too will obviously be reflected in the averages of the students admitted (*El Tiempo* Special Supplement *Education Superior* 30 April 1993).

The original link between the Colombian system and the ETS of the United States is reflected in the restriction of the testing instruments used by the SNP almost exclusively to objective multiple-choice questions (ICFES reply to this survey). As might therefore be expected test items are commissioned from committees of serving teachers, and are carefully vetted and pre-tested (ICFES *op cit*). The results of the examinations are norm-referenced. Such an elaborate system probably could not be justified except for a national system of testing of very wide application.

However, though the questions for such subjects as literature and social studies show extreme ingenuity, the Ministry frankly concedes the widely supported finding of this study that the examinations tend to narrow the curriculum, focus on the theoretical at the expense of the practical and attitudinal. Faced with the question

"To what extent do the state: examinations lead to a greater value being placed on theoretical rather than on practical knowledge or skills?"

the response of the teachers was:

Very much	55
Substantially	15
A small amount	3
Not at all	5

while the group of experts responded:

Very much	5
Substantially	5
A small amount	1
Not at all	2

It is generally conceded that multiple-choice instruments of the type used by the SNP by their nature cannot measure aspects of the "process" curriculum (see below).

It is generally conceded that multiple-choice instruments of the type used by the SNP by their nature cannot measure aspects of the "process" curriculum (see below).

## CURRENT ISSUES ASSOCIATED WITH TESTING AND THE CURRICULUM

With such a wealth of innovative activity as that depicted above one could share the doubts expressed by Donald Lemke (1986 quoted in Chammorro (Ed) 1991) that the Colombian government risks placing "changes upon changes." Lemke's concern is whether the tabled reforms are genuine. He continues, "Reinventions predominate over innovations. The new programmes contain the same structures, the same plans, the same personnel, the same basic ideas. Recycling tends to take precedence over new training. The external structure of the curriculum may change, it may be given a new appearance or a new name, but its basic composition remains intact. "

The movement for Renewal of the Curriculum (*Renovacion Curricular*) has been ongoing in Colombia since 1976 (*decreto* 088 Chamorro 1991 p 23), and though the institution of the New School and the INEM are worthy achievements, from its inception the movement for curricular reform has had a wide frame of reference. Franco de Machado (1990) writes (p 9)

*"From its inception, the specific purpose of the plan was to promote action in related fields such as teacher training, curriculum design, the production and distribution of educational media, and the system of evaluation, all considered critical for the achievement of quality education. "*

One should perhaps also bear in mind Reimers (1993) comments on educational innovations in Latin America in general (*op cit* p 1)

*There are three basic constraints to the economic and political development of Latin America:*

- students learn too little of the intended curriculum;
- schools reinforce social disparities;
- curricula lack explicit attention to the social and emotional domains. "

In the context of a study of assessment, this last point raises particular problems. In political statements about education in Colombia there are many references to what might be identified as more "affective" dimensions of the curriculum. A curriculum which is supposed to achieve "democracy" is going to have to promote certain attitudes and characteristics, as well, no doubt, as certain higher order cognitive skills. Yet as has been recognised from the inception of such a classification of educational objectives, they tend to be "eroded" to *That which can be explicitly evaluated for grading purposes.*" (Krathwohl et al 1964 p 16).

As examples of such affective objectives in Colombia, reference has already been made to the achievements of the New School (Reimers *op sit*). He lists improvements in children's self-esteem and the development of *Cooperation, comradeship, solidarity, civic, participative and democratic attitudes* " Elsewhere we find, for example, in one of the ministerial addresses dating from the Barco regime entitled *"the transformation of the school, a historic challenge for the Colombian peoples* (MEN 1988 p 15)

*"The great challenge which falls on us at this moment in the history of the country is the School as a Cultural Project at the service of the community, a school essential for the future of Colombia, which affects the consolidation of the Colombian cultural identity, the formation of ethical and moral values, the construction of humanism, and the securing of the spirit of solidarity and cooperation ... "*

Faced with such objectives which go far beyond the purely cognitive, one might seek to formulate the curriculum in terms of "process". Heathcote et al (1991) perhaps go to the extreme in distinguishing this approach to specifying the curriculum from one based on "objectives". But they argue that faced with more abstract or general "aims" or "goals" in the curriculum, it is a tendency among curriculum designers to resort to specifications of what the teacher should do, the "processes" to which education should submit the learner, rather than narrowing the outcomes down to strictly defined behavioural objectives. Certainly it could be suggested that the ICFES examinations for selection for higher education, as presently constituted, are more geared to measuring behavioural objectives in the narrower sense, than to the control of any more general or "affective" goals of the curriculum.

Moreover, to these more affective objectives of the curriculum have to be added the objectives derived from "flexibilisation". An example of the sort of objectives which may face curriculum designers may be taken from the Survey published in *El Tiempo*. In the issue of 2 November 1993 the newspaper surveys the requirements of Caldas, a department lying largely on the central cordillera in the coffee growing area. *El Tiempo* indicates a need for, among other examples, agriculturalists skilled in marketing and the appropriate technology. The adaptation of the school curriculum to prepare leavers to train in such specialist areas presents curriculum designers with a very specific challenge.

In a contribution to an issue of the professional review *Education y Cultura* devoted to curricular issues, Rodriguez (1993) mentions this as a specific component of curricular structure (p 23):

*"... a child from the Atlantic coast does not have the same problems as one from the Pacific. From this arises a concern in the training and updating of teachers and that is, how to identify needs and problems so that there should really be a flexibility in the curriculum, so that there should really be a decentralization of the curriculum, and the teacher should identify problems and turn them into projects as much concerning the community as education. "*

Rodriguez foresees a number of ambitious developments in curriculum construction for the closing years of the century, amongst which appear (p 20):

- *"it passes from a concept of the curriculum as study plans to one of curriculum structure;*
- *it replaces the idea of the teacher as transferer of knowledge to one of the teacher as constructor of the same;*
- *it passes from the teacher as administrator of the curriculum to the teacher as designer . . .;*
- *it goes from a concept of Curriculum adaptation (flexibility) to a real concept of the flexibility of the curriculum ...;*
- *from a pupil who memorises to a pupil who thinks ...;*
- *from an approach to the curriculum in terms of results to one in terms of processes ...;*

According to Ayala et al (1993) in the same issue, curriculum flexibility is always at risk of being "diluted to the point of being lost in a conceptual structure which continues to give priority to the definition of content as a central element in educational planning." Hernandez (1993) notes that the official curriculum "is almost always constructed by specialists brought together by the

Ministry and despite the best intentions usually turns out alien, centralist and imposed" (p 35). "But" he continues, "a curriculum constructed with the participation of the school and community can also be given official recognition." He envisages an extreme form of flexibility "leaving spaces for development which is not directed, and freedom to cater for changes in the general course of their lives which are impossible to predict."

In looking at the significance of such concern for individual differences, Hederich and Camargo (1993) give some indication of the implications for assessment (p 54):

*"The mechanisms of assessment would have to be different; they would have to minimise the importance given to speed, memorisation and the expression of academic knowledge, to leave room for forms of assessment in situ based on practice, on the solution of real and concrete problems. This search for solutions could be given as a task to a group of pupils rather than to isolated individuals."*

That the present examinations of the SNP cannot cater for such curricular objectives can scarcely be doubted. The results of the survey of this study were overwhelming. The questionnaire asked respondents to consider whether the present system of public examinations met the needs of (a) the individual and (b) society or the economy in general. The response was,

for society or the economy in general:

yes	6
a little	4
no	77

yes 6 a little 4 no 77 and for the individual pupil:

yes	1
more or less	4
no	91

Respondents were asked to consider to what extent public examinations controlled curriculum content. The response was

very much	29
a considerable amount	24
a little	26
not at all	10

Puzzlingly respondents to this study did not consider the use of practice tests a significant feature of the effect of the examinations, perhaps because they did not understand the question (Very much 20, a fair amount 18, a little 29, not at all 22). But it seems clear that many, if not all institutions "teach to the tests" at least during the last years of schooling. The existence of published texts with examples of the multiple choice questions of the ICFES examinations and advice as to how to succeed in the examination (eg Becerra Ed 1991, 1992) would support this.

Perhaps it is unrealistic to expect formal state examinations to have much effect in a "formative" mode of monitoring progress and guiding teachers in the next stage of learning. In the survey for this study 7& replied "little or not at all" to this question - 87% of the respondents. But more serious negative findings were concerned with helping to raise standards and encouraging innovation, as shown below.

To what extent do examinations help raise standards?

Very much	5
A considerable amount	13
A little	38
Not at all	33

To what extent do examinations encourage innovation?

Very much	8
A considerable amount	12
A little	36
Not at all	31

In considering these negative findings of the survey, it is perhaps necessary to bear in mind the preponderance of respondents from Bogota. There may be a greater proportion of teachers from the special district of the capital who are keen to see innovation in the curriculum and in the examination system.

In any case it is perhaps inevitable that teachers will resent assessment procedures. Nieves (1989 Chap 2) traces an authoritarian element in the assessment procedures applying in Colombia up to the introduction of Automatic Promotion in 1988. These included the ultimate penalty of repeating whole years for those who failed to achieve often arbitrary standards. However, in a work to which he contributed (Orobio et al 1990) some evidence is rehearsed for considering that automatic promotion is poorly understood amongst parents and the implications for teaching and the curriculum not widely understood amongst teachers. The bad effects of repeating years including desertion was the subject of a special study carried out in 1992 by the Institute for Development of Harvard University in the United States and the Research Centre of the Pedagogic University in Bogota (SABER 1993d). They concluded that the incidence of repeating had decreased between 1980 and 1987 ie before the institution of automatic promotion (*op cit* p 7). However, they also found that automatic promotion had affected conditions in the school very little.

Teachers also resent the use of the results of the ICFES examinations to publish "League Tables" of, for example, the top hundred schools according to their ICFES grade point average (*El Tiempo* 6 Dec 1992). This can clearly be criticised as using the narrow definitions of the ICFES test to pass judgement on the performance of a whole school, a point which receives critical comment in the article referred to. That this procedure is questionable is widely accepted and with the initiation of the National System of Evaluation of School Performance, SABER, there exists an alternative based on criterion-referenced measures and which attempts to take account of factors of social background (SABER 1993 a).

The latest reforms of the constitution imply the devolution of curriculum control and inspection to the Education Secretariats of Departments and town councils with all the implications for funding of such a major increase of responsibilities. From the second meeting of such Secretaries of Education in Santander (*El Tiempo* 9 July 1993) it would appear that not even the preliminary problem of funding has been adequately resolved. There must remain much work on the devolution of powers and responsibilities from the Ministry which has still to be undertaken.

In any case, the problem for the devolution from the Ministry of responsibility for the curriculum, and, by implication, for assessment, is the quality of the teachers. This was highlighted in the response of Dra Clara Franco de Machado, one of the expert informants of this study.

The greater part of pre-service teacher training is done in the normal schools which prepare students for the *bachillerato pedagogico*, a secondary leaving certificate which entitles holders to

teach in primary schools. By modern standards such minimal training looks an unsure foundation for any major development in curriculum. Secondary provision, where it is achieved by the 4 year *Licenciatura* from a university, looks a firmer foundation but the quality of these courses has been much criticised (MEN 1990 p 53).

Though not strictly relevant to this study, a pay scale for teachers for the academic year 1993 in a regional newspaper (*Tolima 7Dias* Oct 27-Nov 2 1993) indicates teachers are paid around 800 pesos (US\$0.88) hourly at the bottom of the scale. Promotion is by points earned, amongst other things for in-service training, and at the top of the scale, which may be reached by a graduate in 21 years, a teacher will get about 3,500 pesos (US\$3.88) per hour. Private schools must on the whole be expected to pay less. The response of the profession is, in many cases, to hold two or even three "full-time" jobs (*El Tiempo* 12 March 1992. See also Prado, 1986, p 17 and Arias 1987, p 5). To this should be added the effects of insecurity. A not inconsiderable number of teachers especially in rural areas are subject to threats on their lives ("*Maestros Amenazados*" *El Tiempo* 19 Oct 1993). Clearly, teachers who are holding down several jobs or are concerned for their physical safety are unlikely to undertake the degree of preparation required to support serious curriculum development.

The system of in-service training is described in MEN 1990. It is devolved to a very local level, using "Micro-centres", small groups of 10 or 15 teachers who undertake development work including self-development, under the general supervision of the *Centros Experimentales Pilotos* (Pilot Experimental Centres - CEPs) which are located in most of the main municipalities. This system is reported as having trained 125,000 teachers during the period 1986-89 and the effectiveness of the system is supported by this study. Almost all respondents amongst the practising teachers had participated in such in-service courses regularly during their service and most considered the content useful. The system is in place therefore, but it faces a huge challenge if it is to cope with the amount and degree of teacher development that is required by the devolution and flexibilization described in this section.

## EFFECT OF THE EXAMINATION SYSTEM ON CURRICULUM DEVELOPMENT

It cannot be doubted that the state examinations of the ICFES have served education in Colombia well over the years. The extensive development work has led to great confidence being placed in the system and has enabled the Ministry to control and motivate development in a situation where the professional development of teachers could not be relied upon for widespread initiative in delivering the curriculum.

However, the present moves towards devolving control of the curriculum presents the whole system with a massive challenge. The new constitution clearly envisages flexibilisation of the curriculum to reflect local conditions and, for example, indigenous culture. Moreover, the central role seen for education in democracy will require that the curriculum and the related system of assessment will be extended to take account of what have been labelled above as "affective" features of the curriculum as well as the acquisition of theoretical knowledge, catered for by the present system of the ICFES examinations.

The new system for the evaluation of the quality of education (SABER) could be of great benefit in this process of curriculum development and devolution, particularly its commitment to research, to the dissemination of evaluative information and to investigating more "social" influences on the achievement of the schools (SABER 1993 a). However, further action will need a massive injection of resources at the devolved level, with training for personnel in administration and accountancy as well as in teacher training. It is likely that any move towards a more flexible assessment regime will need to be undertaken over some time and will need much support from the central authority (in this instance, presumably, ICFES).

One should perhaps think of any new developments as being additional to the present framework of examinations and teaching. It can scarcely be doubted that to control and maintain impetus in the changes the Ministry of Education will need to maintain a strong system as advocated in the Ministry submission to CIE for 1990 (MEN 1990). It is to be hoped that the Colombian government can be persuaded to give consideration to these urgent demands of the educational system. For instance it might be a good way of investing the extra resources which are hoped to arise from the exploitation of the recent discoveries of major mineral deposits.

## CHAPTER 3 EGYPT

### BACKGROUND

Egypt, with a population of 56 million is one of the medium-sized countries in this study. Its average population density is 56 per square kilometre, half that of France and considerably less than that of Japan for example. This average however belies the fact that most of the population inhabit the Nile valley, almost half of them in urban areas (see table 1a). The most significant demographic feature in relation to Egyptian education is the population growth rate, which was 2.5% per annum on average between 1980 and 1993. It has one of the most youthful populations of the seven countries, with 24 million under 16 years of age and 8 million under 5 years of age in 1991 (UNICEF, 1993). In 1990, for example, to keep up with enrolment levels would have required building 2 new primary schools per day.

GNP per capita is in the region of \$600, which is low in relation to the developed world, but near the average for developing countries. Approximately 6.7% of GNP is spent on education; but while both GNP and the proportion of it spent on education have both risen slightly in recent years, increases in numbers of pupils have been proportionately larger. In terms of income distribution, of the seven countries in this study, only Japan - and possibly Zimbabwe - has a smaller gap between rich and poor (UNICEF, *op cit.* 1993): the lowest 40% of Egyptian households share 21% of total household income. In terms of poverty, one-third of the population in both rural and urban areas were below the level of absolute poverty during the 1980s (UNICEF, *op cit.* 1993). The debt burden for countries like Egypt is high: as a percentage of exports this was 21% in 1990. To provide a Basic Education for all, far less a developing curriculum and examination system, against such demographic and economic pressure is particularly difficult.

Like many countries, not just those which could be described as developing, there is a lack of jobs for those leaving schools and university. Up until approximately 1990 all university graduates unable to find a job were guaranteed employment by the government. While this commitment had worked well in the past, it became particularly onerous at this time: the economic recession had reduced the demand for technicians and skilled workers, and more females were becoming economically active (Salmi, 1990). By 1990 the waiting period for such guaranteed jobs was 6 years. The civil service had become over-manned, and teaching in particular had had to absorb many graduates who would otherwise not have chosen this career. Since 1990, graduate unemployment has therefore become a more visible problem.

Adult illiteracy has been a major inhibitor of development in Egypt for many years. To some extent this is a hang-over from a feudal past and a time when, under British occupation, the majority of the population were excluded from the education system; when education existed only to serve the needs of elites. It is still a major problem (52% on average in 1990), particularly marked among females (66%), but one which the Egyptian government is trying to address, given the importance of the educational status of the mother in relation to the educational progress of the child.

Despite best efforts, the amount of money which can be spent on the education of each child is necessarily becoming smaller, given the expanding population and economic problems associated with recession and loan servicing<sup>1</sup>

<sup>1</sup> For a fuller analysis of the problems associated with the bureaucratisation of the Egyptian state, see Palmer M et al (1989), and for an overview of political and economic background issues see Richards A and Waterbury J (1991)



## GENERAL FEATURES OF THE ADMINISTRATIVE STRUCTURE OF EDUCATION

All aspects of educational policy-making in Egypt, including curriculum and examinations, come under the aegis of the Minister of Education. Broad policy issues are enshrined in educational laws and ministerial and presidential decrees and articles.

The Ministry of Education is sub-divided into various sectors. There are sectors, for example, for such areas as Educational Planning, Basic Education, Examination Administration, textbook production (the "Book Sector"), as well as sectors with a more regional administrative function. The sectors are in turn split into divisions.

Implementation occurs at Governorate level (there are 26 Governorates within Egypt) and at Mudiriya Level (of which there are in the region of 50). The Mudiriya are educational directorates, and the bigger Governorates, such as Cairo or Alexandria, have more than one Mudiri. The administrative level below Mudiriya is the Idara (zones). Below this level, implementation would be the responsibility of the school principal.

## BASIC FEATURES OF THE EDUCATIONAL SYSTEM: AGES, STAGES, TYPES OF SCHOOL, CLASS SIZE AND PARTICIPATION RATES

In Egypt there are theoretically 8 years of free, compulsory Basic Education generally from age 6 (grade 1) to age 14 (grade 8). Some pupils however start school at age 7 or 8, and in most classes there are children older than their grade would suggest. Repeating a grade is a common phenomenon, increasing in frequency from Grade 2 (9%) through to Grade 5 (22%) (Ministry of Education, 1993, p 13).

There are 5 years of primary schooling, followed by 3 years at a preparatory school. 90% of pupils at the preparatory stage attend General preparatory schools. The remainder attend Vocational preparatory schools: these schools cater for pupils who fail to be promoted from primary. The Ministry of Education is keen to extend education downwards to include a year of pre-school education (The Egyptian Society for Development and Childhood, 1993, p 3).

Enrolment rates are fairly typical of developing countries. Table 1b (UNESCO statistics) shows gross enrolment (1990) in the primary sector to be 101%. As this figure contains older children retained within the primary sector, to an extent it conceals a minority who do not enrol and an officially acknowledged wastage rate of 20%-30% of pupils, ie pupils who leave before the end of compulsory schooling. UNICEF gives the enrolment ratio for females, as a percentage of male enrolment between 1986 and 1990, as 86% at the primary stage, dropping to 78% at the secondary stage. However this percentage varies from Governorate to Governorate: in Sohag Governorate gross enrolment for girls drops to 60% (Ministry of Education, *op cit* 1993, p 11). This report suggests that the main reasons for disparity in enrolment ratios are largely related to availability of schools and to socio-economic factors (p 12).

The wastage rate is also particularly high among girls. These twin problems of relatively lower enrolment rates and higher wastage rates among girls have led to the relatively high illiteracy rates among women. Both features are not untypical of developing countries.

A recent initiative in the primary sector has been the building of community schools. UNICEF instigated a pilot study involving 4 such schools in Assiut Governorate. This study was mounted in an attempt to find a pattern of schooling which could address problems in rural, single classroom schools; problems such as drop-out rates amongst girls, appropriacy of the curriculum to local needs, community support for education, and supervision of staff. Each of the four communities involved in this pilot study had to provide a local support group, and a school building. They also had to find a teacher. UNICEF provided training for these teachers and the necessary equipment, while the Ministry covered salary costs. Thus it was a joint undertaking to

encourage participation rates in rural areas. The Ministry has resolved to build on the success of this project. The aim is to build 3000 such schools. One difference from the pilot study will be that the Ministry will provide the buildings.

Secondary schooling is not compulsory. However at least half the pupils stay on at school for a secondary education, and gross enrolment (ie including older-than-stage children) is reported as high as 91 % for males and 71 % for females who have passed the Preparatory certificate (UNICEF 1986-1990). Those girls who reach secondary schooling tend not to drop out.

Depending on the results of examinations at the end of the preparatory stage (see later), secondary pupils attend Technical or General secondary schools. Within the General secondary schools, high-achieving pupils are taught in a separate stream. There is a long tradition of Technical schools in Egypt; some specialise in agriculture, some in the industrial sector and some in the field of commerce. The Technical sector has expanded rapidly. In the late 1970s it accounted for 18% of total secondary enrolments. By 1990 this proportion had risen to almost two-thirds (61%), and now it accounts for 7 out of every 10 secondary pupils (70%). A small minority of secondary age pupils continue their education for 5 years in a teacher training institute, but this route to teacher training is being phased out.

There exist also two relatively small, parallel strands in the education system, namely the Islamic (Al-Azhar) schools catering for about 4 % of pupils, and language schools in which the language of instruction for some subjects such as Mathematics and Science, is English, or less typically, French. (There are 26 English-medium schools, and 10 more are planned to open shortly.) Some language schools are privately run, while others belong to the state system. These schools are however all supervised by the state, and they must follow the official curriculum and textbooks.

The status of government schools is relatively low. Herrera (1992, p 57) writes

*"One would be hard pressed to find an employee at the Ministry of Education, from secretaries to office managers, to low level bureaucrats, whose children attend government schools. Hence, the very people who dedicate their time and efforts to building government education, namely the teachers and education officials themselves, lack faith in and respect for the system."*

One of the biggest problems of Egyptian education is the lack of schools. In 1953-54 the typical class size was 30. By 1968-69 it had risen to 41. In 1991/92 primary classes contained 43 pupils on average (Ministry of Education, *op cit* 1993, p 10). At present, even with big class sizes, only about 25% of pupils on average attend school on a full-day basis. The sharing of school premises, by different pupils, frequently by different teachers, is particularly marked at the primary and preparatory stages, and within the specialised Technical secondaries. Some buildings have as many as three separate schools operating consecutively throughout the day (Ministry of Education, *op cit* 1993, p 15). The table below (Carroll, 1992, p 4) shows these differences across the various stages or types of schooling.

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Proportions of pupils in full-day schools

Type of school	% in full-day school
Primary	26 %
Preparatory	23 %
General Secondary	68 %
Technical Secondary -	
Industrial	19%
Agricultural	84 %
Commercial	26 %

Despite the efforts of the Ministry, considerable funding from the USAID Basic Education Project (1986-1992), and loans from the World Bank Basic Education Improvement Project, it is still not possible to offer each eligible child a full-day place in reasonably uncrowded conditions. Many thousands of new schools would be required to eliminate "hot-seating" or "multi-shift" education. The condition of the current stock of buildings is also generally well below UNESCO standards. However, providing access to Basic Education for every child of school age in Egypt is considered a priority (Ministry of Education, *op cit* 1993, p 8).

A particular strain on the educational system occurred due to the raising of the school leaving age in 1988-89. Until then there were 6 years of compulsory Basic Education, followed by 3 years of preparatory schooling which was optional. The three years preparatory schooling were made compulsory, and the primary stage was simultaneously reduced from 6 to 5 years. This meant that the primary 5 and 6 cohorts at that time had to be combined. This double cohort is currently working its way through the preparatory stage and entering the secondary stage. It will hit the university sector during 1995-1997.

#### **OTHER SIGNIFICANT EDUCATIONAL PROBLEMS AFFECTING CURRICULUM OR EXAMINATIONS**

There would appear to be a growing awareness of the various deep-seated and often inter-related problems affecting Egyptian education, and steps are currently being taken to address them (Ministry of Education, *op cit* 1993).

#### **Teacher Training**

The lack of suitably-qualified teachers is a long-standing problem for Egyptian education. Despite the fact that current national policy is for an all-graduate teaching profession at all stages of education, with teacher-training undertaken at university faculty of education level, many teachers in the classrooms are poorly qualified.

Training for primary teaching has been the preserve of Teacher Training Institutes, but these are being phased out. They provided a five year course for preparatory school leavers. Teachers in preparatory and secondary schools have traditionally been better qualified, in that they would generally be graduates. However their degrees - from faculties of education - are not necessarily in the subject specialism taught. This is particularly noticeable in the preparatory schools and technical secondaries. It is also more of a problem in some subjects than others. There is, for example, a lack of teachers of English; consequently teachers with degrees in subjects such as philosophy frequently teach English. There appears to be no mechanism as yet to upgrade the qualifications of these "non-specialist" teachers.

There is a further group of teachers, the "under-qualified", who lack a teaching qualification, although they are teaching a subject studied to degree level. There are courses (one year full-time or 2 year in-service) which allow such teachers to upgrade their qualifications.

There are problems in concentrating all teacher-training in university faculties of education. Such bodies are autonomous institutions, and consequently the quality of courses can vary. University training can also focus on the theoretical aspects of education, while giving less attention to the more practical craft of teaching (Kimber 1993, Appendix 5, Report of discussion with Counsellors). The autonomy of such institutions can also allow a slow response to curricular change: new teachers, for example, can be unaware of current teaching materials.

In-service training, a critical area in relation to curriculum development, has been emphasised by successive Ministers. However it suffers from the lack of an overall strategy (Carroll, *op cit* 1992, p 10). Promoted teachers receive in-service training directly from the relevant Ministry sector (GDIST). This body also approves courses delivered at Mudiriya and Idara level. There are plans to make training available through distance learning (Hawkrige, 1992). Educational bodies such as the National Centre for Examinations and Educational Evaluation (NCEEE) and the Centre for Curriculum and Instructional Materials Development (CCIMD) have also been involved in in-service training for particular purposes (new examinations and new curricular materials respectively).

### Teacher Remuneration

Another entrenched problem is teachers' salaries (Ministry of Education, *op cit* 1993, p 21). Although spending on education is not unusually low, teachers' salaries are below what would be expected for this profession, *viz a viz* other professional groups. While the main concern of teachers relates to salaries, they also complain of low status, poor facilities and big classes (Herrera, *op cit* p 57). It would, however, be difficult to raise the salary of teachers, given that their pay is linked to that of other civil servants. Teachers therefore find themselves in need of a supplementary income, such as a second teaching job or private tutoring (Bahaa El-Din, 1992). Nor does promotion appear to be the answer for any individual teacher. (To become a senior teacher, an applicant must give up private tutoring (Al Ahram 26.2.88), and since more money can be made through the latter, the incentive for promotion is low.)

The prevalence of private tutoring has been recognised as a problem by the Ministry: Sorour, the previous Minister of Education, described it as

*"a significant obstacle to the achievement of equality of opportunity for all students"*. (Sorour, 1991)

Parental aspirations are, naturally enough, high. However, these aspirations result in considerable sacrifice for Egyptian parents. Herrera (*op cit* 1992) quotes a study reported in the Middle East Times 2-8 April 1991 (Egyptian Edition) which stated that up to one third of the average Egyptian family's income is used for private lessons for their children.

Various measures have been introduced to deal with this problem, the first of which was increasing teachers' salaries. However it has not been possible to improve teachers' salaries significantly, and private tutoring continues to flourish. Given that teachers have knowledge of and influence over, the results of promotion tests, and given that there is a premium on academic success and promotion to the next grade or stage of schooling, it has been alleged that teachers knowingly create test results such that pupils will require additional tutoring (Rose Al-Youssef, 4.5.87). This system can lead to a resentment of the teaching profession by parents.

### Information flow

Another area which could be viewed as problematic is the lack of reliable school statistics and information on both achievement and costs. However, in 1992, the first Educational Statistics Report was produced which represents a major step forward in relation to educational planning.

### Duplication of roles and divided accountability

In relation to curriculum development and examination reform there exists a range of committees or bodies which have an interest in these matters (see below). This situation appears to have arisen due to changes in policy. Such duplication of roles can tend to create rivalries, uncoordinated reform, divided accountability and difficulties in implementation and dissemination of policy.

## TIE CURRICULUM

### Control of the Curriculum and Curriculum Development

Egypt has a "national curriculum" in that a single textbook is used nationwide in each subject in each grade (Carroll, *op cit* 1992, p 6). This has meant that there has been no need for attainment targets to be spelt out: the textbooks - and examinations - have implicitly described the targets. Textbooks are frequently divided into lessons or teaching units. In relation to curriculum development, Kimber (*op cit* 1993, Appendix 5) concludes that

*"the provision of textbooks is the single driving force in curriculum change."*

Historically the Ministry of Education has made all curricular decisions, and has been responsible for all curriculum development. A major part of this control has been exercised through control of textbooks. Sorour (*op cit* 1991) describes the pre-1987 process of curriculum development which had led to inertia:

*"The syllabi were usually authorized by a committee of scholars, appointed by the Minister of Education upon the recommendations of the subject counsellors. Upon the completion of the syllabus, an author was selected, most typically an academician who was a member of the curriculum committee, to develop a textbook. The academic status of textbook writers was in some sense a deterrent to independent review by any outside body of reviewers...support material in the form of teacher's guides was either not provided, or was written by someone other than the author of the text. This process led to numerous problems, such as use of language that was too difficult for the children to understand, inclusion of concepts that were beyond the developmental level of a normal child in the target age range and information that was fragmented rather than interrelated."*

In relation to the curriculum, he stressed the importance not only of knowledge but also of skills (such as problem solving and decision-making) and attitudes. He also considered that the curriculum should be developed to improve accessibility, to attend to individual differences (especially the gifted), and to widen curricular choice by introducing new subject material. Attention was also to be given to aspects of quality (new teaching methods, better textbooks and teachers' guides) and to making education more directly related to the world of work (*op cit* p 5354).

Up until 1987 there was one body responsible for advising the Minister on curricular matters. This was the National Centre for Research (NCER). At this time it was considered that the three roles of educational research, curriculum development and educational planning should be distinct areas of responsibility, but in 1987 these functions were subsumed under this one

umbrella organisation, the NCER, which was re-named the National Centre for Educational Research and Development (NCERD). This centre was established by Presidential decree, and USAID (Basic Education Project) was involved in its funding. By 1989, however, the Minister felt there was a need to separate the functions of education planning, curricular research and the development of curricular materials. Educational planning was drawn into the Ministry; the role of the NCERD was restricted to that of research; and a new organisation, the Centre for Curriculum and Instructional Materials Development (CCIMD) was set up to oversee the development of textbooks and instructional materials. CCIMD staff, in subject teams, were to work with counsellors (ie senior inspectors) and consultants from the Ministry of Education and members of specialised committees. They were to produce detailed syllabuses (topics and concepts), evaluation strategies, outlines for texts and teachers' guides. The text books and related teaching materials were then to be written by teams of educationalists rather than by individuals. Type-setting and printing were to remain the responsibility of the Book Sector of the Ministry. A system of piloting and consequent revision was also instigated. CCIMD attempted to link the release of new curriculum materials to in-service training, usually based on a cascade model of dissemination. Considerable progress has been made on this agenda particularly in terms of new curricular materials for the primary school curriculum, introduced for Grades 1 to 4 in 1992. They differ from previous curricular materials in that they have moved away from memorisation; rather they stress critical-thinking skills. Teachers' guides contain advice on remediation for slow learners.

However, the CCIMD has not been established by Presidential decree, and consequently lacks an official organisational and administrative structure. Many of the staff therefore are merely on secondment from the NCERD. Additional insecurity arises from its reliance on USAID which finishes in June 1994.

These reforms have more recently been generally endorsed by the current administration (The Egyptian Society for Development and Childhood in collaboration with the Ministry of Education, *op cit* 1993). For example, the importance has been recognised of giving children the

*"opportunity to practise independent thinking, free opinion, understanding before rote learning and discussion before commitment" (p 3)*

and the need for

*"the continuous development of primary school curricula to cope with the scientific and technical innovations" (p 5).*

However this seminal conference called for a new focus in primary education, a new curriculum and a new curricular process. This focus, which can also be detected in Scotland and in France places emphasis on the acquisition of basic skills in the first 3 grades, and the consequent opportunity to build on such basic skills at upper primary level. The syllabus outline is not as detailed as in the case of the previous curricular reform, nor is the whole process so integrated or comprehensive, but this has to be balanced against the time available to implement the change. The process of creating textbooks and instructional materials will now revert to the former method. This method allows individuals to submit tenders, and thus injects a measure of competition into the system. It should also be more rapid in the development phase. In an attempt to retain the best aspects of the former method, CCIMD will still have a voice in the review of curriculum targets, and of the textbooks. It will also be involved in field-testing the textbooks and in the training of those who will be delivering complementary in-service training. A note of caution however is sounded by Kimber (*op cit* 1993 para 3 1 11) in terms of the system creating problems of coherence in the curriculum.

Inspectors have a significant role in education in general, and in the curriculum in particular. Chief Inspectors (Counsellors) provide subject-specific curricular advice to Ministry officials, and are involved in textbook preparation, in-service training of teachers and examination

supervision. Inspectors generally operate mainly at Mudiriya level. (The shape of the Inspectorate may however change.)

At secondary school, the reforms introduced by Sorour, involved a common curriculum for the first two years of secondary schooling, with a fast-track for gifted pupils. Pupils now study 13 compulsory subjects, each for a prescribed time allocation. Typically a pupil will study Arabic, a foreign language, social sciences, science, mathematics, philosophy, home economics, religion, sociology, Arabic society, and a technological subject. Time may also be given to political or cultural studies. For their final year they can choose a mathematics, science or an arts track.

At the level of subject, the curriculum is spelt out through the prescribed textbooks. Each pupil is provided with a complete set free each year, and even in rural areas textbook supply is adequate. Teaching materials are also available. (This policy regarding the availability of textbooks is reminiscent of Japan, but in Japan teachers' salaries are relatively high *viz a viz* other professions. It is also interesting in relation to policy in Scotland where pupils generally have to share textbooks, but where class size is significantly lower than in either Japan or Egypt.)

It would seem that this arrangement of apparent overlapping responsibilities could be open to rivalries and could be counter-productive to curriculum reform or development. Kimber (*or cit* 1993, para 3 1 14), in the context of curriculum development in the primary school, writes

*"It is not entirely clear who has responsibility for this continuous review of the curriculum. Previously the CCIMD had this role, but it appears to be a more diffuse responsibility, including NCERD, the Ministry of Education Counsellors, the NCEEE and those who participated in the conference."*

## THE EXAMINATION SYSTEM

Beyond grade 3, Egyptian school children have to sit tests and examinations frequently. The school year is divided into two semesters, and achievement testing by subject and by grade is conducted at the end of each. (This however represents a reduction in testing: a third component, now less common, was monthly assessment in each subject at each grade.) On the basis of these end of semester and end of year tests a decision is made on whether or not a pupil is promoted to the next grade. To an extent therefore these tests are "high stakes" for individual pupils. Most tests are conducted at Idara level (ie locally) to test specifications produced by the Ministry of Education. Groups of schools work together to prepare and mark the tests. This is the case for grades 5, 6, 7, 9 and 10. At grade 4 the testing is conducted at school level, by the class teacher, but with national test specifications. (The NCEEE has just completed the task of devising and piloting new grade 4 tests in language and mathematics in two Governorates.)

The test specifications do not however refer directly to particular components of the curriculum such as objectives or learning outcomes or performance criteria; rather they refer to test properties such as number and types of test items which must be included. For example, in a recent second year preparatory promotion examination specification for English, teachers must construct items as follows:

"Choose the correct answer. (5 marks)

*Five grammar items are to be given. Students are asked to choose the correct answer out of the four options provided."*

The quality of item-writing is variable. There are also considerable variations in the content covered in different forms of the same examination, and this tendency is reinforced by the frequent use of essay questions, which can limit the number of topics tested in any one examination (Carroll, *op cit* 1992, p 8). Thus the standards achieved in the various localities are

not necessarily comparable despite a national framework. In theory, tests are checked by Inspectors, but this is not always the case. These problems have been recognised by the Ministry (Ministry of Education, *op cit* 1993, p 18). (Recently the NCEEE has been involved in a post-test review of promotion tests, but as this is not structured to fit in with in-service training it is difficult to see what benefit will accrue from the work (Kimber *op cit* 1993, para 2 1 1). It would seem to offer possibilities for national standardisation of tests, albeit by means of feedback for future test diets.)

The promotion tests at the end of primary schooling, ie grade 5, provide the evidence for a Basic Education Certificate, and promotion to the preparatory stage. This certificate is now less important given that it no longer marks the end of compulsory schooling. Promotion rates to general preparatory schools are very high at this stage, with few pupils (approximately 10%) being directed to Vocational preparatory schools.

The Egyptian examination system as it affects the primary stage is currently undergoing major change. As in France and the UK there is a move towards national testing in the primary schools (ie not national monitoring as in the USA and Colombia). One reason for such a major development would appear to be the need to convince parents of their child's progress, and thus reduce the drop-out rate. Another reason is to reduce grade repetition, by producing diagnostic information which can be used to inform a remedial loop for pupils. A recent Ministerial Decree (no 71 in March, 1993) laid down the structure of this reform. Such tests are to be conducted at grades 3 and 5. They are to be developed and administered by the NCEEE, in cooperation with the Ministry and NCERD. They are to reflect curricular objectives closely and are to be pretested in 1994 and become operational in 1995. It is envisaged that once the new system is operational, it will replace the current testing framework.

Pupils currently graduate at the end of compulsory schooling, ie at grade 8. They are awarded one of three possible certificates, though this is not mandatory. The most prestigious of the three certificates is the Adadiya 'Amma, sometimes called the Preparatory Certificate. The examination papers are constructed by local inspectors and administered at the level above the Idara, ie at Governorate level. The other certificates are the Basic Education Certificate (Vocational) and the Certificate of Completion (for those who fail the Adadiya 'Amma and those who do not sit it.) At this stage approximately half the pupils leave school. (It is asserted that some graduate from this stage without basic skills.) The remainder go on to either General secondary school or Technical secondary school, or may opt to repeat the year. Those who do well in the Adadiya 'Amma can sit further examinations, of a verbal-reasoning type, the results of which control access to a high achievers' stream

For those who attend General secondary schools, besides the twice yearly diet of achievement testing for promotion purposes, pupils face their highest stakes examinations at the end of the three years: this is the Thanawiya 'Amma, a group certificate in 10 subjects with three possible tracks, Arts, Science and Mathematics. The Thanawiya 'Amma is organised nationally (ie set administered and marked) by the Ministry of Education. Its main function is allocative: a long-standing and prestigious university entrance system is built on it and thus change to the Thanawiya 'Amma would have repercussions at University level.

The average pass rate for the Thanawiya 'Amma in 1990 was 61%. However, pass rates tend to vary between the three tracks and between Governorates. In 1990, omitting presentations of less than 500 candidates in any Governorate, Arts passes varied between 50% and 82% (average 59%); Science track pass rates varied from 49% to 66% (average 56%), and Mathematics track passes ranged from 55% to 67% (average 62%) (Ministry of Education, 1992, p 86).

There are plans to allow for individual subject passes as well as a group score as from 1995-6 (Kimber, 1992, p 5) and to allow candidates to spread the examination load over 2 years attempting 4 subjects in grade 10 and the remaining 6 subjects in grade 11 (Al-Ahali, 2.9.92). However, this would require greater sophistication in examining than at present in that



comparability of difficulty of examinations year by year would need to be maintained. It may be that the NCEEE could have a role to play in this area, and in developing feedback procedures for test results, to inform both teaching methods and curriculum development (*op cit.* p 12 and 13).

For those attending Technical Secondary school, the vast majority (four-fifths) gain their Technical School Diploma, and with it attempt to enter the job market. Some go on to sit entrance tests for the Higher Institute of Technology.

Pupils at Language schools tend to sit examinations such as the International GCSE and the AS Level, examinations offered by examination boards in England. Such a qualification secures entrance not only to universities abroad, but also to Egyptian universities.

Thus, for most pupils, there are examinations and tests all along the way which have the purpose of promoting pupils grade by grade, of enabling pupils to graduate from each stage of schooling. and of allocating pupils to particular types of institution. As the stakes increase the control moves from school to Idara, to Governorate and finally to Ministry level. The imminent introduction of national testing in the primary school represents a shift in control of the examination system towards the centre.

### **Policy-making and implementation**

Policy-making and implementation relating to examinations is perhaps even more complex than in the case of curriculum matters. The Supreme Council for Examinations and Educational Evaluation was established in 1987 to advise the Minister of Education and to spearhead reform of the Egyptian examination system. Its remit, as required by the Minister of Education, was to:

- define standards required for examination items;
- provide an evaluation of general examination questions;
- advise on curricular evaluations and teacher training;
- undertake research in connection with examinations and evaluation.

This advisory body had committees which dealt with policy issues at the level of school subject and sub-councils which dealt with dissemination and implementation at Mudiriya level. Its major product to date is a series of books of model examination papers for use in examination training in schools (Carroll, 1990, p 7, 8).

In 1990 the Supreme Council was subsumed into the newly-established National Centre for Examinations and Educational Evaluation (NCEEE); it re-emerged as the governing council of the NCEEE. This body, established by Presidential decree and thus administratively an organisation with considerable status, now has the role both of advising the Minister on policy issues, and of implementing policy decisions. Theoretically it is independent of the Minister, with a Director appointed by Presidential decree. It is also financially independent of the Ministry. However, in reality, the governing council is chaired by the Minister, and thus a balance is struck in terms of influence on policy-making. There would, for example, be little point in suggesting an examination change which the Minister would not wish to have implemented in schools.

The main area of work currently undertaken by the NCEEE is the development of national tests for grades 3 and 5. The test material is being produced by the Centre, and from the items available, parallel tests will be constructed. The Mudiriya will administer the tests, and will also have some say in the items chosen. Each test will however have a core of items in common.

The Centre is also involved in developing, piloting and evaluating tests at grade 4, and preparing some questions testing higher-level skills for what may become an advanced level paper for the Thanawiya 'Amma. Under the previous administration it was envisaged that this body would

undertake reform of the Thanawiya 'Amma. It was to be responsible for developing alternative assessment systems, introducing assessment of higher-order skills, monitoring validity and reliability and training teachers in assessment. The previous minister, Sorour, explicitly wished to use examinations

*"as a mechanism to change teaching objectives and methods."* (Kimber C Pand Woodford P E, 1990)

However there are difficulties inherent in the reform of this high stakes examination, and thus it would appear that the main role of the NCEEE will be primary testing for some time to come (Kimber, *op cit* 1993, para 2 0).

Within the Ministry itself there is a department which administers the Thanawiya 'Amma and the Technical School Diploma. This department deals with question paper moderation, type-setting and printing of examination papers, registration of candidates, supervision of the examinations *per se*, marking of scripts and the gathering of results. These are all key activities in the operation of any examination system. Thus organisation of the high stakes examinations are firmly under central control.

Inspectors are key personnel in the supervision of marking. In particular, Senior Inspectors take part in a review of question papers for the Thanawiya 'Amma - on the day of the examination and can recommend changes to the proposed marking scheme. (They also have a role to play in the promotion tests organised at Idara level; theoretically they check the content of such tests.)

As yet then, the NCEEE does not have a centre-stage role in examining in Egypt Nor does it have access to data on the results of the Thanawiya 'Amma, although current plans are that it should be given responsibility for their analysis (Kimber *op cit* 1993, para 6 3). These are at present processed by the University of Cairo which in turn provides the data necessary for university admissions to the Supreme Council of Universities Coordinating Office.

The main reason for what seems like overlap of responsibilities appears to lie partly in the number of curricular reforms, and partly in the lack of continuity in policy regarding both curriculum and examinations. The role of the CCIMD has been curtailed in response to a reinterpretation of the nature of primary education, and, in more practical terms, by the change in the procedure for commissioning textbooks; the role of the NCEEE has been curtailed somewhat in that plans for revision of the Thanawiya 'Amma have been side-lined. To a certain extent, new roles have been carved out for these two bodies, but, given the relative status of the NCEEE, it seems likely that its future is the more secure.

This overlap in roles and responsibilities makes it difficult to plan and implement effective curricular or examination change. It also means accountability is somewhat diffuse, and information flow, while improving, is still limited.

University professors, in particular those in Faculties of Education, would appear to have a more influential role in the process of curriculum development and examinations than in the other countries in this study. They are, for example, involved in the small teams which construct the examination papers for the Thanawiya 'Amma. While their subject expertise can be considerable, and the small size of the teams an advantage from the point of view of examination security, nevertheless the dominance of university personnel can exert influence "backwards" on the school curriculum. Frequently their area of expertise is subject-specific or related to psychometrics; they tend to have less experience of the school *milieu*, or indeed, knowledge of how children learn.

Universities in Egypt are autonomous institutions and staff have independent and pervasive links with most if not all the bodies mentioned, including the book sector of the ministry. This has led

to the growth, in these educational bodies, of a layer of senior advisory and executive personnel, who are part-time, and whose main commitment lies elsewhere. A possible weakness of such a system is that it does not lead to the development of expertise within these particular institutions. Within the NCEEE, for example, the governing council is composed largely of Presidents of universities. The four departments within the NCEEE are each chaired by a Dean of a university faculty, and within each department, the various units are chaired by a university Head of department. The executive is also partly staffed by university personnel, with even the Chief Executive retaining a university post. Even at the level of subject Test Development Committee, and there are 42 such groups currently writing and vetting items for primary testing, the chair is a professor. The accountability of an adviser is necessarily low.

## EFFECT OF THE EXAMINATION SYSTEM ON CURRICULUM DEVELOPMENT

### Curriculum development through test-related textbooks

Curricular development in Egypt has traditionally been linked to revision of prescribed textbooks, and this continues to be the main channel of reform nationwide. There was however considerable inertia in the textbook system pre-1987 (Sorour, *op cit* 1991). There followed a few years of a more collegiate approach to textbook production within the framework of a comprehensive approach to innovation, involving teams of writers, many of whom were teachers. However, although the mechanism has recently reverted to individuals tendering for commissions to develop textbooks (see above), the main mechanism of curriculum development remains the textbook, backed up by instructional materials.

To an extent a major purpose of Egyptian textbooks and teachers' manuals (and hence the curriculum) appears to be to articulate closely with tests and examinations. For example, "English for Industrial Schools" (produced by the Centre for Developing English Language Teaching, in cooperation with the Ministry of Education and Longmans) advises the teacher that when constructing examinations not only should attention be paid to the test specifications provided, but also to the formats of both textbook exercises and those of practice or revision tests in core textbooks.

### Curricular or assessment-driven changes

Some changes however appear to have been curriculum-driven rather than assessment-driven, for example the introduction of a new curriculum in the primary school. The advent of national testing at grades 3 and 5 appears to be building on this relationship in that curricular objectives are being mapped out prior to the writing of test items and construction of tests. However where teachers put up resistance to curricular change, Kimber (*op cit* 1993, para 5 6) suggests

*"the introduction of better test methods should put pressure on teachers to alter teaching methods..."*

This would, for example, probably be the case if teachers thirled to traditional methods found that the tests required some oral or practical responses from their pupils as well as written responses, or where items required a problem solving approach rather than regurgitation of facts.

New subjects have also been introduced into the curriculum without the major carrot of examinations to ensure that they have indeed been taught. Computing studies syllabuses were introduced into secondary schools, and in primary schools technology and physical education were given space in the curriculum.

Yet another innovation which could be described as curricular rather than assessment-driven is the decision to build community schools on a large scale. The 4 pilot schools had a curriculum which was related to income-generating activities, and the school day was flexible enough to

Yet another innovation which could be described as curricular rather than assessment-driven is the decision to build community schools on a large scale. The 4 pilot schools had a curriculum which was related to income-generating activities, and the school day was flexible enough to allow children to attend to their duties at home as well as at school. It may be difficult to retain this curricular and organisational independence given the move towards national standards in the primary school. However, the plans for national testing in Egypt allow a degree of local variation, and it may therefore be possible to allow such curricular flexibility whilst maintaining national standards.

Reform of the Thanawiya 'Amma was to have spear-headed curricular reform in the General secondary schools; however this is no longer the policy. The current administration would appear to prefer curriculum-driven reform, ie long-term reform through Basic Education (The Egyptian Society for Development and Childhood, *op cit.* 1993). However Thanawiya 'Amma has powerful allies and may be difficult to reform even in the longer term: firstly, parents have arrived at an accommodation with this demanding examination because it is seen to be fair; secondly, the universities find it a useful selection device. The allocative function of the Thanawiya 'Amma (ie its role as a filter for Higher education) has been said to have "*bedeviled General secondary education*" (Carroll, *op cit* 1992, p 3) for some time. It could therefore continue to exert considerable influence on the curriculum of the secondary school, both in terms of subject matter taught, differentiation of the curriculum and teaching methods.

In the meantime the NCEEE has been allowed to develop special papers testing higher level abilities: these may form an optional part of the Thanawiya 'Amma, and the basis of advanced level courses aimed at potential university entrants. This would however appear to be an example of assessment-driven curricular reform.

### **Backwash effect of the examination system on curricular content, teaching methods and learning strategies**

Examinations in Egypt, whether regular monthly assessments, promotion tests or more formal examinations such as the Thanawiya 'Amma, have traditionally emphasised memorisation of facts: this has affected both the curriculum content and methods of teaching and learning. Most teaching could be more accurately described as lecturing (Sorour, *op cit* 1991) and most learning as rote learning.

The high stakes nature of much of the testing, at preparatory and secondary schools in particular, ensures that the curriculum conforms to the examination system. Monthly assessments and promotion tests have also allowed teachers the opportunity to create a market for private tutoring (Herrera, *op cit.* p 69). The high stakes also encourage cramming and discourage change. High stakes tests can also encourage "group cheating", ie the teacher or invigilator giving the pupils the answers (Al Akhbar 15.5.87). The fact that parents do not have complete confidence in the results of promotion tests has allowed pupils to become demoralised and to drop out of the system. These types of malpractice have led to a desire for a more national approach to testing, and a more rationalised system.

The new national tests at grade 3 and grade 5 are to include oral and practical tests as well as written tests. This development could affect the curricular emphasis given to these aspects of learning. It is also intended that they should provide feedback on performance, and suggestions for remediation: this too could have far-reaching effects on the method of instruction. (However it must be acknowledged that the scope available for such instructional and curricular change is severely limited by the large class size.) This would appear to be an instance of an examination system affecting the curriculum in a positive direction. Nevertheless, the way in which this development is presented to teachers (namely if it is merely imposed upon them) and the availability of good in-service training related directly to the changes could affect whether or not the reform is implemented as intended.

It may be that a further layer of national examining, such as a common university entrance test will have to be introduced. The reasons put forward for this are mainly threefold: the rise in numbers of school-leavers who wish a university education; the difficulties inherent in reforming the Thanawiya 'Amma; and the increasing number of students who use "back-door" methods to enter Egyptian universities such as the Open University (Akhbar El-Yom, 12.9.92), despite Ministry attempts to close such loopholes (Al-Wafd, 24.12.88). Such separation of secondary graduation from university selection procedures is reminiscent of the USA and Japan. It is difficult to see how such a development could avoid having a backwash effect upon the curriculum, given its potential "high stakes".

The primacy of examination success and the widespread nature of private tutoring have also spawned a range of tutoring supports which reinforce a content-heavy curriculum and factual recall. "External books" ("crib books" or "companion books") are content-oriented, even to the point that a pupil cribbing for an English examination would have an Arabic translation of the English text. (Crib books are produced by private companies who employ prominent local inspectors or experienced local teachers to write them (Al-Shaab, 27.10.87). They are generally regional rather than national in scope.) The Ministry has a vetting role in these books, and no longer attempts to eradicate them (Al-Ahram, 27.10.87). Since this is a lucrative market, there is an incentive for those involved both in their creation and in examinations or other examination preparation materials, to include, in the latter, content or item types found only in the external books (Carroll, *op cit* 1992, p 7). Several strategies have been employed by the Ministry to try to reduce tutoring and the use of external books: for example, there are official audio and video tutoring cassettes (Al-Akhbar, 5.3.87) and books of model examination questions which parents (and teachers) can purchase. Provision is also made for in-school group private lessons (Herrera, *op cit*. p 75). The NCEEE produces "student self-evaluation guides". But while these devices attempt to reduce the need for tutoring, nevertheless, each emphasises the primacy of examination success. The stakes attaching to examinations such as the Thanawiya 'Amma are such that parents succumb to what would appear to be a cram type of education. The salaries of teachers are at a level such that teachers feel compelled to be part of this system which appears to undermine good curricular and general educational experiences, and to put a brake on curricular development.

It would seem essential for effective curriculum reform and the attendant examination reform, that there would need to be formal links between the bodies responsible for curriculum development, examinations and in-service training. In a recent report Kimber (*op cit* 1992, p 10) states that there is a need for the NCEEE to have

*"close working relations...with CCIMD to ensure that all the staff concerned with the grade 4 development are familiar with and sympathetic to the curriculum development in grades 1 to 3. "*)

These links are at present either not in place or ill-defined.

However uncomfortable parents may be with the present system of examinations, the fact that it is reasonably stable and relatively fair means that it enjoys their continued support (Al-Akhbar 7.9.92). There is also a feeling among parents that the system of promotion tests, despite its flaws, does motivate pupils to study. Such a perception hampers not only attempts to reduce the burden of assessment for pupils, but also any proposals for liberalising the examination system (Carroll, *op cit* 1992, p 8). But without reform of the high stakes examinations it is difficult to see how curricular development could be effective in secondary schools.

## CHAPTER 4 FRANCE

### BACKGROUND

In population terms France is the third largest of the countries in this study, with approximately one-fifth of the population of the USA and slightly less than half the population of Japan. Its total population of 57 million is on a par with Egypt. Population density is moderate, not nearly as high as Japan, but considerably higher than in the other five countries. The population growth rate is second lowest of the seven countries, typical of the developed economies of Western Europe. It is also typical of this geographical area in its relatively high degree of urbanisation (73%) and its ageing population. In 1990 the youthfulness of the population, described in table 1a as the number in the 0-14 age group expressed as a percentage of the number in the 15-64 age-group, was 30%, and falling. This proportion is similar to that of USA and only slightly higher than in Scotland or Japan. In 1991 there were over 12 million children under the age of 16. These demographic features are shown in table 1a.

Per capita GNP in 1990 was almost \$20 000, comparing favourably with the other developed countries in the study. The growth rate in GNP in the decade up to 1990 was 1.7%, and like almost all of the countries in the study, this represented a decrease in economic output compared to the previous decade. The proportion of GNP spent on education is relatively high (and rising), but less than in Zimbabwe or Egypt, countries with a larger proportion of young people in the population.

The gap between the wealthiest and poorest sectors of society is fairly similar in relative extent to that in the UK, the USA and Egypt. The lowest 40% of households share 18% of total household income, while the highest 20% of households share 41%. This is less extreme than in Colombia, and less equitable than in Japan (UNICEF, 1993). Unemployment is now over 3 million.

There has long been a tradition of meritocratic equality in the French education system, at least in theory. In this system, as in the Scottish system, the high stakes examination (the *baccalauréat*, somewhat familiarly termed *le bac*) has played a notable part. The recent broadening of the candidature for the *bac* can however be viewed from various vantage points. A headmistress of a large Parisian upper secondary school (*lycée*), addressing the British Head Masters' Conference in Bruges in 1992, considered this equality "the reverse of the democratic dream", as it has not taken full account of the diversity of pupils now staying on at school. Derouet (1991, p 130) writes that such broadening of intake should not be taken as evidence of real democratisation of education, since social inequalities still exist. He also refers to growing disparities between schools as market-forces take effect and quotes the work of Ballion (1989) in relation to consequent differences in funding.

Another general feature of French education is the high expectations parents have of the system, reminiscent of Japan; and like Japan, the knowledge parents have of how it works. In a Scottish Office Education Department working paper on the French *baccalauréat* (p 5), the following comment is made:

*"Overall, the onus is on pupils to achieve progress across a series of attainment targets, with the costs and benefits of failure and success at each stage publicly understood, and the currency of credentials in working life and further and higher education being widely understood and accepted."*

This level of acceptance can also make examinations difficult to reform: the *bac* must be one of the only examinations in the world to have had public demonstrations organised to protect it from reform: such is the place accorded to the *bac* in the public psyche.

Reform, however, is a feature of the French educational system. Each successive administration has tended to bring in a series of reforms (Malan 1987). Most recently, with a swing to the "right" in French political life, parental choice of school, publication of Inspectors' reports, state funding for independent schools, devolved financial control, league table of exam results, merit pay for "professional dynamism" are all on the educational agenda (TES 19.3.93).

French education puts considerable responsibility on pupils. In an article reporting on a survey commissioned by the French government, Czerwenka (1990,) found that French children generally enjoyed going to school for social reasons, but that school stood for discipline, hard work, success in exams (p 857) and rigidity and harshness (p 855). The study involved a comparison with schools in Germany.

### GENERAL FEATURES OF THE ADMINISTRATIVE STRUCTURE OF EDUCATION

France has traditionally had a highly centralised educational administration (Broadfoot 1992, p 324), established to create equality of provision (Derouet, *op cit.* p 120) after the French Revolution. The Minister of Education, through decrees, has considerably more power than for example his counterpart in Scotland. Eckstein and Noah (1992, p 8) consider the French system even more highly centralised than the Japanese system. Given that employment of teaching staff, curriculum, textbooks, examinations, in-service training of teachers, quality control of schooling as well as the administration of vocational and professional training are all among responsibilities of the Minister of Education, this assertion is probably justified.

However, since 1986, they also refer to some modest devolution of responsibilities to the 95 *départements* (administrative divisions) and the larger cities (p 161). Derouet (*op cit.* p 122) also writes of the roots of this trend and the move towards greater institutional autonomy and diversity (p 126). He considers that the decade 1975-1985 was one of transition from a national unified system to a more diversified, decentralised system, more responsive to local needs (p 123). However teachers were wary of a system which devolved policy-making power to local authorities. In the late 1980s a compromise was found (Toulemonde, 1988): schools became "local public educational establishments", supervised jointly by the Ministry of Education, the regional Chief Education Officer (*recteur*), and the relevant local authority. For lower secondary schools (*colleges*) the local authority was the *département*, while for the upper secondary schools (*Lycées*) it was the Regional Councils of which there are 22 (Derouet, *op cit.* p 126).

Decentralisation has given regions responsibility for *Lycée* building (TES 16.4.93), and increased the scope for diversity of provision. For example, since 1989 in the Ile-de-France - the populous area around Paris plagued with high youth unemployment - schools have been entering into financial partnerships with a range of companies in a drive to improve access to training opportunities (TES 16.4.93). The result has been 30 000 new training places, 12 new training centres, 3 of which are university-based.

However, with decentralisation has come the counter-balance of national monitoring of performance. Broadfoot (*op cit.* 1992, p 309) comments on the twin developments as they affect assessment: on the one hand the need to make schools respond to the wider range of pupils now staying on and the need to reassure the public that, as the accepted pattern of national direction monitoring and control gives way to greater local variation

*"quality and national equality are being maintained".*

Derouet (*op cit.* p 127) concludes that the state's role is now more that of supervisor than director, which he considers to be a major innovation in the French context. In relation to such matters, it would appear that convergence has been occurring between historically quite different education systems in France and Scotland (TES 30.10.92).

Higher education is now a separate ministry from school education. Broadly similar trends in decentralisation have also been occurring in Higher Education, allowing individual universities to decide on entrance requirements and develop their own degrees while at the same time retaining the national status of their qualifications (Neave, 1991, p 31). Some particularly prestigious higher education institutions (*grandes écoles*) are administered by private bodies, such as Chambers of Commerce.

## **BASIC FEATURES OF THE EDUCATION SYSTEM: AGES, STAGES, TYPES OF SCHOOL, CLASS SIZE AND PARTICIPATION RATES**

### **Ages and stages of education and types of school**

Most French parents choose to have their children attend *école maternelle* (nursery school or kindergarten). Children attend between the age of 3 and 5, sometimes as young as 2 years. These schools are usually attached to primary schools, and are free and non-compulsory. Of all the countries in this study, France would appear to have made the most comprehensive provision for its pre-school age-group.

Between the ages of 6 and 11 years, children attend *école élémentaire* (primary school), with 3 stages, preparatory (1 year), elementary (2 years) and *Doyen* (middle, 2 years). Generally they proceed without entrance examination to the secondary stage. However progression to the next stage is not automatic (see below).

Following primary schooling pupils move to a *college*. The first 2 years at *collège* (6 *eme* and 5 *eme*) constitute an observational cycle during which options for the following 2 years are considered. Pupils at this stage follow a common curriculum. This has been the case since 1977 (Derouet, *op cit.* p 121). The majority of pupils continue with a general curriculum during their third and fourth years (4 *eme* and 3 *eme*), ie the orientation cycle. There are however various optional tracks for pupils who wish a more vocational slant to their education.

After 4 years at *collège* (age 15-16), pupils will either have taken the *brevet des collèges* (*brevet*) or will be working towards the more vocational qualifications, *certificat d'aptitude professionnel* (CAP) or *brevet d'études professionnelles* (BEP) (see below). A small proportion leave the school system at this stage - minimum leaving age 16 years - to attend training centres. The majority (60%) progress to either a general and technical *lycée*, or a (vocational) *lycée professionnel*. The *lycée* stage lasts for three years (*seconde, première and terminale* (final)). However pupils attending *Lycées professionnels*, have the possibility of an additional year.

There is also a parallel private education sector, subsidised by the state but mainly administered by the Catholic church. While small (16%) by Japanese or Colombian standards, this sector is expanding (Broadfoot, *op cit.* p 309).

Provision for pupils with special educational needs is provided in a separate but parallel system of state schools.

### **Participation rates**

Participation rates at the nursery stage are very high, with at least 95% of 3-6 year-olds enrolled (European Childcare Network, as reported in Education Guardian, 9.11.93). Czerwenka (*op cit* 1990, p 854) suggests this high participation rate is related to the desire by parents to avoid their



children having to repeat a year. Participation at the primary and lower secondary stage is virtually 100% for any age cohort. However, gross participation rates are necessarily higher, given that repeating a year is still fairly common. The Ministry of Education is trying to reduce it: for example reading is now taught in a three year cycle in primary school, within which children should not repeat (Anderson et al, 1991, p 81). Nevertheless, by the end of primary schooling 30% of pupils will have been required to repeat one or more school years (SOED, *op cit.* p 1). Table 1b gives a gross enrolment figure for the primary stage as 109% (1990).

At the secondary stage, staying-on rates have risen dramatically, with approximately two-thirds of the age cohort going on to *lycée* (SOED *op cit.* 1990, p 3). Repeating a year is also a possibility at the secondary stage. Derouet (*op cit.* p 128) quotes from a Ministry survey which reported that, for the cohort entering secondary education in 1980, only half had completed their compulsory schooling without repeating. The SOED paper (*op cit.* p 8) quotes figures between 13% and 20% of any year group repeating a year.

### Class size

Pupil-teacher ratios (generally lower than class size) are shown in table 1c as 16 for the primary sector and 13 for the secondary sector. Broadfoot (*op cit.* p 310) comments on the effects of the rapid expansion of the secondary sector in recent years in terms of increasing class size and pupil-teacher ratios.

### TEACHER TRAINING

Because of the variety of types of school which used to exist in the *collège* sector teachers may hold one of a variety of qualifications depending on type of subject and age of pupils taught. Traditionally there has been entry to the profession by competitive examination, with a pass dependent not only on the standard of achievement demonstrated but also on the number of teaching posts available. Learning the practical craft of teaching was until recently done on-the-job, but a professional training is now on offer from specialised university institutes (TES 13.3.92), involving both theoretical and practical aspects of teaching (TES 16.4.93). Respondents to the survey, trained under the previous regulations, were generally of the opinion that pre-service courses did not prepare them in relation to examinations.

In-service training is provided both nationally and through the local administrative divisions. Courses are not compulsory. As in the case of pre-service training, the small group surveyed considered that assessment issues were much less likely to be addressed compared to matters concerning curricular content or teaching methods.

### THE CURRICULUM AND EXAMINATION SYSTEM

*To add an additional dimension to data from published sources a small scale survey was undertaken. This comprised a questionnaire in French which was sent to a range of interest-groups. The teachers and university personnel contacted were opportunity samples, either through contacts in France or through a language school in Scotland. The responses therefore have the potential to be skewed towards the teaching and examining of languages. In all, 43 questionnaires were distributed, as follows: French delegation (1), National Inspector (1), Universities (3), teaching unions (2), Head teachers (2), teachers (20), parents' associations (7), pupils' associations (5) and Chambers of Commerce (2). 26 responses were received. The response rate from groups involved in the provision of education was high (90%), but the response rate from the three Consumer" groups parents' associations, pupils' associations and Chambers of Commerce) was zero. Where relevant, the results of this small survey have been included in the ensuing parts of this report.*

### Control of the curricula 1 and the examination system

As in the case of Scotland, the curriculum and examination system in France are inextricably related, and description of either one requires a knowledge of the other.

While considerable decentralisation in the provision and administration of education has taken place, the curriculum and examination system are aspects of the education system for which control has been retained largely within the Ministry of Education. A national curriculum - now available in paperback form - has always been a feature of French education (Lewis, 1989, p 369), a fact of life for the French, "as much part of the scenery as the Eiffel Tower" (TES 16.4.93). Through it a common culture has been expressed over the years. The national curriculum is described in terms of particular subjects to be studied at each stage, whether these are optional or compulsory, the hours to be allocated to each subject, objectives to be met, content to be tackled in each year and official instructions for teachers. This is a legally-enforced curriculum, in both state and private schools. Beyond the stage of the common curriculum ie after 2 years of secondary education, curriculum packages rather than subjects are offered to pupils, each package attached to some form of certification or rite of passage.

Respondents to the small survey were asked what liberty teachers take in reality in terms of the curriculum. Generally the response in terms of content was "very little" or "none" or "some adaptation in relation to needs of pupils" but considerable liberty in methods of instruction. One respondent, a teacher at a *collège*, wrote

*"very little: they (the teachers) arrange the curriculum in an order of preference, and try to get to the end of the programme."*

The national inspector respondent considered that while the national curriculum is imposed on all, it is flexible enough in many subjects. Derouet (*op cit.* p 128) considers that local modifications have in many cases been provided, and that teaching has taken on more of a local flavour.

A recent development in relation to the long-established freedom in teaching methods is a 100 page recommendation document recently sent out to primary teachers regarding the teaching of reading (TES 16.10.92).

Programmes have always gone through various consultative bodies in France, and thus have generally had the backing of the teaching profession. In 1989 the then education minister, Jospin, set up the National Council for Programmes (CNP) to oversee curricular matters. This body, comprising teachers, researchers and employers was established to undertake work previously done by national inspectors. However, it would appear that it can only function with Ministry backing:

*"Though sections of the education ministry support the CNP approach, it is not surprising that others have been applying the brakes, aided by some inspectors. So far most CNP proposals have been modified by the time they have reached the consultative body, and some have been blocked.... This defines a circular - and modifiable - process that starts at the minister's request and moves through phases of development, consultation and evaluation, then back to the minister" (TES 16.4.93).*

A body which advises both the education and employment ministries is the *Centre d'Etudes et de Recherches sur les Qualifications* (CEREQ). It tries to ensure that there is convergence between the needs of the economy and educational provision.

In relation to *lycée* courses leading to the *baccalauréat*, the bodies with most influence are the inspectorate and the universities.

Control of the curriculum is also exercised through control of textbooks. Editors of textbooks must conform to the national curriculum. Subject teachers in any school must then agree which of several texts they will use for the ensuing 4 years. The Ministry then pays for the books. Teachers with the highest qualifications have more freedom in this matter.

Given that there is strong central control of the curriculum, it follows that curriculum development is also controlled centrally. This is the case for major curriculum reforms (such as the increased diversification and vocationalisation of upper secondary education) and smaller scale changes in subject content. Broadfoot (*op cit.* p 310) writes that

*"the espoused aims of French educational policy now embrace the need to modernise the curriculum in line with changes in the nature of knowledge and the way it is to be applied, including in particular, the promotion of more individualised teaching, the creation of provision for on-going appraisal and guidance for students, and the encouragement of a much greater degree of teamwork among teachers."*

There is to an extent a climate of innovation (and consequent evaluation) in French schools (Meuret, 1990), but this is usually related to organisational aspects and teaching methodologies rather than curricular content.

Control of the examination system is somewhat more diffuse than for the curriculum but more centralised than in for example Scotland or Japan. The three main mass examination systems are the *brevet* (taken after four years at *college*), the *baccalauréat* taken generally after 3 years at *lycée* and national testing in French and mathematics administered at the start of the third year in primary, the first year of *college* and the first year of *lycée*. (To this could be added a range of less formal assessment systems, relating to the more vocational tracks, such as the CAP and BEP.)

In relation to the *brevet*, schools have considerable freedom to assess candidates according to national guidelines. In relation to the *bac*, however, there is more Ministry control over standards. Some authority is devolved regionally to 23 government-funded *academies*, but the Ministry tries to ensure that each regional *bac* is uniform in relation to timing, content and structure across the nation (*Ministère de l'Éducation Nationale*, 1985). *Academies* play an important role not just in administering and marking the examination but also in choosing the questions and setting the standards, with grades awarded according to national guidelines (Eckstein and Noah (*op cit.* p 156). In particular, questions are chosen by university staff, but, as the response to the survey from the national inspector stated, the inspectorate retain control of this process. Each *académie* has a group of client schools, and each school presents for only one *academic*. The *bac* is therefore a national examination, with policy-making under central control, but with implementation at regional level.

Concern has been raised as to the equivalence of the *bac* across the regions. The number of candidates and their rates of success vary substantially between regions and *séries* (type of *bac*) (Eckstein and Noah p 156). In response to a question in the survey on the equivalence of standards within and between regions in relation to the *bac*, comments varied. However great confidence in the system ("identical", "homogeneous") was suggested by the responses of 72%. Nevertheless, the three university responses to this question encapsulated a measure of uncertainty in this area. One commented merely with a question mark, another stated that standards were "identical" between regions and the third suggested that variations exist depending on the strictness of the markers. Common examination papers (within *academies*) and anonymous, external marking were seen by most respondents as hallmarks of common standards. Less so were standardised administration procedures or *inter-académie* comparability studies (only 2 respondents ticked these options). In relation to the option "moderation of question papers", a third of the respondents considered this to be part of the procedure: the national inspector judged this to be the case only "to some extent".

With the increasing candidature for the *bac* (see below), more attention has now turned to the *concours d'entrée*, a *post-bac* highly competitive examination, not unlike the Japanese entrance examination system. These examinations, which select candidates for the prestigious *grandes écoles*, are organised centrally by the Ministry, but taken throughout France.

National testing is organised centrally. It was introduced in 1989 through a consultative process. While the assessment instruments are devised at national level, administration, marking and interpretation of the data are undertaken at school level, according to national guidelines and with the help of computer software produced by the Ministry.

Results of both national testing and the *bac* are now published. In the case of the former aggregated results are published nationally so that parents and teachers can compare the results for their school to national norms. So far the Ministry has resisted pressure to publish results to allow inter-school and inter-region comparison (Broadfoot, *op cit.* p 318). The Ministry is currently attempting to develop statistical tools which might allow such comparisons; tools which reflect the complexity of the system, and the time scale involved (TES 3.7.92). However, *bar* results are published by *académie*, and in some newspapers, by *lycée*. In Corsica, for example, a local newspaper had a front-page article entitled "*Le hit-parade do back*" and inside listed the lycées in rank order of percentage success. It also tabulated the success overall in terms of the various *séries* (*La Corse* 27.7.93).

### The Curriculum and Examination system

#### Primary schools

The Primary curriculum consists of 27 hours per week, 8 of which are devoted to French, 6 to mathematics, 7 to natural sciences and technology, 2 to history and geography, 1 to art, 1 to music, 1 to moral and civic education, and 5 hours to physical education and games (Lewis, *op cit.* 1989, p 370). Each of the 3 stages of primary schooling has a detailed national curriculum to follow. Lewis concludes that the breadth of the syllabus raises the question of cramming. The primary classroom would appear to have a greater similarity to the formality of the Japanese classroom (though classes are not as large) than for example the Scottish primary classroom. Emphasis tends to be on basic skills (TES 13.3.92) and subject-related knowledge.

Primary pupils sit national tests in French and mathematics early in their third year and the results provide the teacher with a detailed diagnosis of each pupil's strengths and weaknesses. The aims of national testing are to encourage a more individualised approach to teaching pupils (Broadfoot, *op cit.* p 315), and on a national scale, to contribute to the improvement of the education system (TES 7.2.92). As these aims are largely formative, they are not "high stakes" for individual pupils.

*Collèges*

All pupils at *collège* have the same basic timetable, with the addition of one further subject in the final two years (choosing from Latin, Greek, a second modern language or technology). The subjects and number of hours are:

	Observation cycle 1st two years	Orientation cycle final 2 years
French	5 hours	5 hours
mathematics	3	4
modern language	3	3
social subjects	3	3
experimental sciences	3	3
artistic subjects	2	2
technical/practical subjects	2	1.5
physical education/sport	3	3

In the observation cycle there is modest provision for the needs of the most and least able, but although streaming has been abolished since 1975, mixed ability teaching is not commonly practised (SOED, *op cit.* p 2). There is still an underlying assumption that the pupils should fit the curriculum rather than the curriculum be adapted to suit the needs of pupils.

However, although this is the curriculum for the majority of pupils, - leading towards the *brevet* and eventually the *bac* - approximately 40% of the cohort currently opt for a more vocational track after the observational cycle, spending half their time on work-experience. Broadfoot (*op cit.* p 310), drawing on the work of Wolf and Rapiou (1992), describes the various possibilities for pupils for whom this "choice" is often the result of low achievement rather than positive desire.

*"For those who wish to move more rapidly into vocational training there is the option of a preparatory fourth year as the first of a 3-year course in a lycée professions. Further options include classes professionnelles de niveau which provide a remedial option for students with difficulties and classes préparatoires à l'apprentissage which lead more directly to an apprenticeship."*

Such "orientation by failure" or "siphoning-off" of non-academic pupils has tended to give technical education a "whiff of the second-rate" (TES- 13. 11.92).

Some complete their CAP certificate whilst attending *collège*, others at *lycée*, while others complete it at a training centre (*centre de formation d'apprentis*). The remainder of pupils who have been diverted into vocational streams have a curriculum which is geared to BEP certification, a qualification completed at the *lycée* stage, not at *college*. Such pupils would generally sit their *brevet*. Both CAP and BEP qualifications are largely internally assessed.

The main examination for most pupils at this stage is the *brevet*. This is not a high stakes terminal assessment; more a statement of a standard of attainment at a particular stage in schooling. Results are based both on examinations (in French, mathematics, history and geography) and on continuous assessment. A cumulative record of such internal assessments (*livre scolaire*) is kept for each pupil. The examinations are set locally with some standardisation, but the continuous assessment component is not moderated across schools. This has led to some doubt being cast on the results of the *brevet* (Broadfoot, *op cit.* p 322). The external pan of this examination was abolished in 1977, but re-instated in 1986. However it would appear that some doubts about standards remain.

When pupils enter *collège*, they are also subject to national testing in French and mathematics. As in the case of primary schooling, these tests are seen as low stakes by comparison with, for example the *brevet*.

### *Lycées*

The curriculum at the *lycée* stage becomes even more complex, but in every case the curricular track taken is directly related to a particular qualification. While pupils study subjects, their qualifications are holistic rather than subject-based.

At this stage approximately two-thirds of the age cohort proceed either to a general *lycée* (where they are prepared either for an academic or a technical qualification), or a *lycée professionnelle* (where they are prepared for one of a range of more vocationally-oriented qualifications). There is however articulation between the various tracks, at least in theory, and lateral transfers while not common are possible (SEED, *op cit. p 5*).

At the general *lycées*, pupils can take a general (academic) or technical *bac* curriculum, or, if this is too demanding, a technical diploma (*brevet de technicien*). Pupils would generally start this diploma track in the first year at *lycée* (*seconded*). In the *bac* tracks there is now a wide range of possible choices, but once the choice is made, the curriculum is fixed for all pupils choosing it. The first year for potential *bac* pupils is quite broad in curricular terms. The compulsory core is represented by:

#### Hours per week

French	5
history and geography	4
modern language	3
mathematics	4
physical sciences	3.5
natural sciences	2
physical education	2

This leaves some room for optional subjects in the timetable: a minimum of two and a maximum of four from specified groups of subjects, to retain curricular balance. This allows a certain degree of specialisation during the first year at *lycée*: for example one pupil may study 3 modern (foreign) languages while another could study 3 subjects with a technological background. This in turn leads to relatively early decisions about which *series* of the *bac* a pupil will attempt: for the general *bac*, the choice is between languages/literature, economics, mathematics/physics, mathematics/ natural science, mathematics/technology, with the mathematics/physics *series* having the highest status. The technological *bac* offers 12 possible options (for example mechanics or electronics). Decisions on which *series* to take can cause problems, as Broadfoot notes (*op cit p 322*).

*"The problem of the arbitrary domination of maths and science specialisms in the baccalauréat has long been a source of concern since it means students choose their specialisms, notably maths, on the basis of that subject's ranking in the pecking order rather than its relevance to their needs."*

Generally teachers advise pupils regarding which *bac* track they should aim for, but parents may appeal against school decisions on such matters.

At the *lycée professionnelle*, the curriculum is also aligned to qualifications. Pupils either take courses leading to the CAP, or the BEP or the *bac professionnelle*. The CAP is awarded for skill in one of a wide range of trades, and the BEP for more general skills in one of a range of 5 employment sectors (for example industrial, commercial or administrative). The biggest range of

possible BEP qualifications are within the industrial sector. Those with highest BEP grades can move into a *bac* stream, either joining those who have entered with the intention of taking the *bac professionnal* or moving to a general *lycée* to attempt a technical *bac*. At the *lycée professionnal* continuous assessment features quite widely, even in the *bac* (Broadfoot, *op cit* p 322). This sets it apart from the general *lycées*, and perhaps inhibits movement between the various tracks.

Despite criticisms about early specialism, relatively high failure rate (Czerwenka, *op cit.* p 854) and dependence on external assessment, the *bac* curriculum, with its common core of compulsory subjects provides pupils with a strong base of academic study across a range of subjects (Eckstein and Noah, *op cit.* p 8). Tempering this system somewhat is the weighting applied to the various combinations of subjects within any *series*. For example, the examination in mathematics is longer and more demanding for candidates wishing to specialise in mathematics and science, and the results also count for more in the final result, than for candidates in social subjects or literature.

*Bac* examination papers generally elicit extended answers, formal proofs or computations. They require reflection and analysis rather than recall (SOED, *op cit.* p 10). The *bac* is also the only examination throughout the seven countries which has a strong tradition of oral examinations.

Successive governments have expressed a wish to increase the proportion of the age cohort at *bac* standard or its equivalent to 80% by the year 2000 (*Ministère de l'Education Nationale, op cit.* 1989). The growth has been considerable, aided by the expansion in the number of tracks available, particularly in relation to technical and vocational strands. There is also a possibility that, in the future the *bac* might be taken over two years. (Such a development is also being actively considered for the high stakes examination in Egypt.)

Given the rise in the proportion of young people with the *bac*, pressure has been exerted both downwards on pupils still at school, and upwards on universities. At school, the restriction on the number of optional subjects has been lifted from September 1993 thus opening the door to an even more demanding curriculum (TES 21.5.93). And while the *bac* is still a valuable qualification, and a necessary passport to university entrance, it is no longer a sufficient qualification for all faculties (Eckstein and Noah, *op cit.* p 161). The *concours*, a government-organised examination organised on behalf of prestigious faculties and the *grandes écoles*, now assumes greater importance in relation to controlling access to such educational opportunities. Pupils who wish to sit these examinations must spend one, but more usually two years in specialised preparatory classes attached to *lycées*. To get into these *classes préparatoires* candidates must have scored highly in the most difficult of the *bac series*, and have a equally impressive record of school work. The benefit of passing the *concours* lies not only in future career prospects, but in the chance to study in university classes with superior facilities and staffing ratios (Eckstein and Noah. *op cit.* p 9). Results of the *concours* are also published, in relation to each *Lycée* with such classes (Lewis, *op cit.* p 377). Eckstein and Noah conclude (*op cit.* p 9) that

*"for these segments of higher education, in particular, the make-or-break features of the French examination system closely parallel those of Japan. "*

## EFFECT OF THE EXAMINATION SYSTEM ON CURRICULUM DEVELOPMENT

One part of the French examination system which appears to have the potential to underpin curriculum development in schools is national testing. Because these examinations are low stakes for both teachers and pupils, and the atmosphere surrounding their introduction has been consultative, the climate would appear to be conducive to experimentation. Broadfoot (*op cit.* p 325) suggests that the French national assessment initiative

*"clearly has considerable potential for stimulating curriculum development and fruitful collaboration and discussion between teachers as they address the strengths and weaknesses of their teaching as these are revealed by the test results."*

In relation to the *brevet* and *bac* however, the stakes are considerably higher for both the individual pupil and, increasingly as examination results become public property, for institutions: change is therefore more strongly resisted.

As has been demonstrated above, at both *collège* and *lycée* the curriculum is closely aligned to the examination system. And given the degree of central control over the curriculum it follows that curriculum development is similarly aligned. 77% of the respondents to the small-scale survey judged that examinations in France control curriculum content taught in class to at least a considerable degree, with more than half of them responding "very much". They could see this has positive as well as negative effects; for example 85% considered that the examinations clarify the curriculum in terms of standard expected. More negatively they generally did not find examinations useful for the purpose of pupil guidance in relation to the curriculum: only a quarter chose the options "quite important" or "very much" for this question. Even fewer considered the examination system a means of either introducing new curricular content (12%) or new methods (12%) or speeding the uptake of such innovations (23%). These views would seem to echo the conclusion of Eckstein and Noah (*op cit.* p 161) that while

*"the examination system has changed sufficiently to help achieve some larger targets of control...it is more generally seen as a bulwark against any fundamental change in education."*

However that the *bac* has been a means of diversifying the curriculum and widening access to pupils of more modest abilities is difficult to dispute. Previously the curriculum was considered somewhat demanding, academic and theoretical (Eckstein and Noah, *op cit.* p 155) and while that may still be the case for high status *bac series*, there now exist parallel, less intimidating tracks with a more vocational slant and a broader range of assessment instruments. The introduction of the technological *bac* has brought a range of such subjects into the curriculum of the *lycées*. To what extent new curricular material can be introduced and taken seriously by teachers in *lycées* without the incentive of an examination to ensure uptake, is difficult to assess. In the context of computer education, for example, it has been suggested that not only would the introduction of a *bac* testing such skills speed curriculum development in this area of knowledge in schools, but that it would also be a way of ensuring that problems of supply of computer hardware and software would be solved (TES 4.12.92).

In terms of stakes for individual pupils there can be little doubt that the *bac* and, for a minority the *concours*, are high and possibly rising. This, coupled with the status the *bac* enjoys, to some extent makes reform difficult, particularly in relation to developments in pedagogy. Teaching styles, with their emphasis on lecturing, and on theoretical rather than practical approaches, have long been dominated by the demands of the *bac* (Broadfoot, *op cit.* p 322). It can also be accused of encouraging a "teach to the test" type of approach,

"serious attention being given to areas of study in proportion to their importance in the formal assessment" (SOED, *op cit.* p 10).



Survey respondents were asked to consider the degree to which they judged examinations lead to too great a value being placed on theoretical rather than practical knowledge or on memorisation rather than comprehension. In the case of the status of theoretical approaches, 73 % judged the emphasis too great by "a considerable degree" or "very much", but only 8% judged teaching styles dependent on memorisation to be a problem. This would appear to match evidence from published sources.

This effect on teaching styles is a serious one, given the backwash effect it can have further down through the system: a stage in learning can be seen more as a preparation for an ensuing stage. rather than a stage in its own right. Derouet (*op cit.* p 125) considers this to be the case in relation to *collèges*.

*"...the collège inevitably becomes the preliminary phase en route to the lycée. At ceases to be in itself a stage of education and instead becomes a preparatory level Reich must to some extent model itself on the structure, teaching methods and subject areas of the lycée."*

He goes on to assert that the comprehensive ideal of the *colleges* has been undermined by early curricular specialisation.

To an extent it could also be judged that there is a backwash effect on the curriculum of the *lycées* from the examination demands of the *grandes écoles*: the most able candidates tend to gravitate towards the most prestigious *bac series* (Lewis, *op cit.* p 377), and innovations in such prestigious areas of the curriculum tend to be resisted.

Survey respondents were asked to what extent they judged the system to be meeting the needs of pupils and of society and the economy. Only 7 of the 26 judged the examinations to be meeting the needs of pupils, and some such responses were qualified by comments such as the lack of personal choice. Society and the economy fared little better with only 8 positive responses.

When asked whether they were aware of pressures within society for change to the examination system, the ratio of "yes" to "no" was 2:1. Such pressures were judged to be emanating most from government and least from parents, with such groups as industry, universities and teachers also mentioned as favouring change.

Finally respondents were asked to make an overall judgement about the effect (beneficial or otherwise) of examinations on the curriculum. Half the respondents judged the overall effect beneficial - though sometimes qualifying it in terms such as "a necessary evil". Others judged it to be "part of the social system" and left it at that. One respondent commented that

*"the exams are rather traditional, and do not encourage innovation".*

Although perhaps there has been a reluctance to change the *bac* in France, and in particular, some anxiety that its status might be undermined by diversifying into the technical and vocational areas, nevertheless it has evolved to accommodate quite considerable curricular changes. Eckstein and Noah (*op cit.* p 156) conclude that the examination system which once guarded schools against the pressures of change

*"has served as an effective means for implementing changes in the education system. . . The French (op cit. p 168) can, and do, regard the baccalauréat as both a lever for effecting change in education, and at the same time, as an obstacle to further change."*

## CHAPTER 5 JAPAN

### BACKGROUND

With a population of 125 million, Japan is in population terms, second only to the USA amongst the seven countries in this study. France and Egypt, the next biggest, each have less than half this population. It is by far the most crowded country of the seven with an average population density of 331 per square kilometre. 77% of the population live in urban areas. Like most developed countries the population growth rate is relatively low (0.5 % per year), and consequently the population is an ageing one (see table 1a).

GNP per capita is one of the highest for any country in the world, and although the growth rate has slowed slightly in the 1990's, it still remains considerably higher than in the other six countries. The proportion of GNP spent on education is fairly similar to that in Scotland, but somewhat smaller than in France or the USA.

Among the industrialised nations Japan has one of the smallest gaps between rich and poor. Figures for percentage share of total household income averaged over the period 1980-1988 (UNICEF 1993) show the lowest 40% of households sharing 22% of total household income, and the highest 20% sharing 38%. This compares favourably with the other six countries in the study and, for example, with nearby Hong Kong where the lowest 40% of households share only 16% of total household income while the highest 20% share 47% .

Since 1988 the gap between rich and poor has not noticeably widened in Japan, as it has in, for example Scotland and the USA. Also, central government funding policy in relation to the compulsory stages of education is geared to iron out many of the possible financial and resource anomalies. As explained by Benjamin (1991, p 254)

*"Income differences between wealthy and poor prefectures (districts) are erased in terms of funds available for public spending. The central government maintains some control in the prefectural spending of these funds and insures that spending in compulsory schools in all prefectures is at the same level."*

This funding policy is fairly similar to that in Scotland, for example, and quite different to that which operates in the USA. Differences in spending between prefectures are somewhat less controlled beyond the stage of compulsory schooling however, at upper secondary school level.

Underlying Japanese education is the belief that, with good educational opportunities and personal application, success is possible. Talent is seen as less important than hard work. Benjamin (*op cit.* p252) summarises this view thus:

*"Since natural differences of endowment are nearly insignificant, all learners will benefit equally from the same careful curriculum. "*

Given this belief, it is not difficult to understand why in Japan, level of education is generally accepted as a valid and fair criterion by which roles in society are allocated.

Some would argue however that the meritocratic, egalitarian approach to education is merely a form of window-dressing; that educational values have been subjugated to economic values. Professor Horio, a Japanese educationalist, writes (1988)

*"The conditions casting dark clouds over our nation's educational life - the conditions in which the work of our schools has been subordinated to the exam preparation industry in which schools now function as the site of the struggle over social selection, and in which*

*these days it is frequently said "As long as they know how to do well on exams, who cares whether or not they are educated ? " - directly reflect the values which are impoverishing the intellectual life of our people."*

The Japanese educational system, or at least its measurable outputs in terms of economic success, has frequently been held up as a model for other countries to emulate. In his introduction to Horio's book, Platzer paraphrases the author's view that these high levels of academic achievement are better understood as signs of the destruction of true education in Japan (Horio, *op cit.* 1988, p xxv).

Nevertheless, irrespective of the interpretation of the facts, a relatively favourable situation for schooling *potentially* exists when compared to the other six countries, in terms of economic and demographic background factors, and to an extent in terms of what might be termed a cultural bias towards education.

### **GENERAL FEATURES OF THE ADMINISTRATIVE STRUCTURE OF EDUCATION**

Japan's educational system is highly centralised and alters according to government edict. The Ministry of Education (*Monbusho*) formulates national education policy, prescribes curricula (Courses of Study) and the standards required, approves textbooks, and controls finance. It does not operate on a consensual model of decision-making. It is assisted directly by 12 standing advisory councils the most influential (SOED, 1992, p 1) being the Central Council for Education. Its functions are

*"to deliberate basic and important government policies in education, science or culture, and to submit its reports and recommendations to the Minister. Since its creation in 1952, the Central Council for Education has deliberated various important policy issues facing the Ministry .... and has so far presented 27 reports on a wide range of issues, including: the promotion of private schools; the improvement of national systems regarding school textbooks; ..."* (Ministry of Education, Science and Culture, 1991)

The work of this Council was suspended between 1984 and 1989 pending a report by the National Council on Educational Reform (see below). Other standing advisory councils deal with more specialised areas such as vocational education, curriculum and with textbook authorisation.

Within the Ministry there are several Departments and Bureaux dealing with aspects of educational administration. There is, for example, the Elementary and Secondary Education Bureau (with 7 Divisions including one for each stage or type of schooling and a textbook Division); and a Higher Education Bureau which controls, among other aspects of education, the University Council Office, Teacher Training and the University Entrance Examination Office. Several institutions such as prestigious universities and upper secondary schools are administered nationally. The *Monbusho* also has a department which assists in the administration and financial support of private educational institutions. (Ministry of Education, Science and Culture, *op cit* 1991)

Local government also has an important role to play in the administration of education. There are two levels of local administration, prefectures and municipalities. Each of the 47 prefectures is divided into a number of municipalities. In each prefecture there is a (small) board of education which is responsible for the administration and management of education, generally in the upper secondary sector. This Board, which is appointed with the consent of elected members of the prefectural assembly, has the authority to appoint a Superintendent of Education (chief executive officer). However, this appointment has to be approved by the *Monbusho*. The Board's administrative role extends beyond schools to the training, licensing and appointment of teachers. The Governor rather than the Board has direct responsibility for prefectural universities and junior colleges, and private schooling.

Board's administrative role extends beyond schools to the training, licensing and appointment of teachers. The Governor rather than the Board has direct responsibility for prefectural universities and junior colleges, and private schooling.

At the level of municipality a similar administrative set of relationships exists. The (small) municipal board, appointed by the mayor - with the approval of the elected members of the municipal assembly - in turn appoints a Municipal Superintendent of Education. This appointment is made from within the membership of the municipal board, and has to be approved by the prefectural board of education. The role of the municipal boards is largely related to the administration of elementary and lower secondary schooling, and the adoption of textbooks for the schools under its jurisdiction (from *Monbusho-approved* lists). Like the prefectural governor, the mayor of the municipality has a direct role in the administration of municipal universities and junior colleges (Ministry of Education, Science and Culture, *op cit* 1991).

### **BASIC FEATURES OF THE EDUCATIONAL SYSTEM: AGES, STAGES, TYPES OF SCHOOL, CLASS SIZE AND PARTICIPATION RATES**

#### **Ages and stages of education**

Japan has 9 years of compulsory education, with elementary schooling from grade 1 to 6 (age 6 to 12 approximately) followed by three years of lower secondary schooling. (There is also a well-developed special-school system which parallels this pattern, administered by the prefectures.) Pre-school education in Kindergartens is not compulsory but is popular especially for 5 year-olds . Approximately 95 % of pupils stay on beyond the compulsory period of schooling, mainly attending full-time upper secondary schools. A minority attend such schools part-time, or a college of technology. This high "staying-on rate" is maintained despite the fact that the prefectural government is not required to provide upper secondary places for all pupils who would like to stay on at school.

#### **Types of school**

There exists a range of types of school, and a flourishing state-subsidised private sector. Almost all compulsory schools are established and administered by municipal boards, while private schools have a large "market-share" at the non-compulsory stages, ie kindergarten, upper secondary school and higher education (mainly junior colleges and universities). The table below shows the proportion of institutions and of pupils/students in the national, local public (ie prefectural or municipal) and private sectors in May 1990 (SOED, *op cit* 1992).

#### **% of Institutions % of Students**

National	Local Private		National		Local Private		
			Public	Public	Public	Public	
Kindergarten	<1%	41%	58%	<1%	22%	78%	
Elementary	< 1%	99 %	1%	< 1 %	99 %	1 %	
Lower secondary	< 1 %	94 %	5 %	< 1%	96 %	4 %	
Upper secondary	< 1%	76 %	24 %	< 1 %	71%	29 %	
Colleges of technology		87%	6%	6%	86%	8%	6%
Junior colleges		7 %	9 %	84 %	4 %	5 %	91%
Universities		19%	8%	73%	24%	3%	73%

For those pupils who successfully complete their studies at upper secondary school the choices for higher education are university or junior college (national, local public or private), or colleges of technology. There are also over 3000 special training schools, most of them private, which provide further education of a more vocational type.

Within this range of provision there is a hierarchy of institution based on perceptions of the status of these institutions. The extent to which the examination system underlies this hierarchy is discussed later.

### **Participation rates**

At kindergarten stage participation rates of 5 year olds have risen steadily with two thirds now attending; at the compulsory stages of schooling, ie elementary and lower secondary, participation rates in Japan have been over 99% since the reorganisation of education after the Second World War; a very high proportion (95%) continue on to upper secondary school although it is not compulsory. These schools are mainly general upper secondary but there are also a minority of technical upper secondaries, which, away from the most populous areas, still maintain a high status. 36% of the age cohort go on to university or junior college (Ministry, *op cit* 1991, pp 18-19).

### **Class size**

Information on class size is conflicting. The most recent UNESCO World Education Report (1993) reports pupil-teacher ratios of 21 at the elementary stage and 17 at the secondary stage (see table 1c), based on 1990 statistics. Tables 1-5 and 1-13 in the Ministry report (*op cit* 1991) give a slightly higher ratio (ie 20) for the secondary stage in 1989. In relation to actual class size, the Scottish Inspectorate reported the majority of elementary school classes visited having more than 30 pupils (SOED *op cit* 1992, p v). The Report of the English Inspectorate on "Aspects of Upper Secondary and Higher Education in Japan" (1991) states (para 97)

*"Perhaps the most tantalising aspect of the Japanese system to a visitor who is used to the upper years of British schooling is that its success is achieved in classes of 40 or more students...."*

Ishizaka Kazuo, Chief of the Curricular Research Division of the National Institute for Educational Research, (1990, p 29) states

*"Class size varies widely depending on the location of the school. The average nationwide class size of elementary and lower secondary schools is 31.5 and 38.1 respectively. The maximum class size for public compulsory-level schools is 45. In elementary schools as of 1987, classes of 41-45 accounted for 13% of the total while classes of 7 or fewer students accounted for 6%."*

Class size appears to vary considerably and, especially at the secondary stage, is greater than would be found in either the USA or Scotland for example, but somewhat lower than in developing countries. Government policy is to reduce the maximum class size to 40 (Ministry of Education, *op cit* 1991).

### **The unofficial schools**

Any description of Japanese schooling must include reference to the proliferation of profit-making private institutions. Ishizaka (*op cit* p 42) describes the range of such institutions: there are classes for creative activities and sport (mainly attended by younger children), joke for academic subjects (remedial, supplementary and advanced), and joke specifically geared to help pupils through the maze of entrance examinations (see later). He quotes a study from 1985 which showed that 16.5% of elementary school pupils and 44.5% of lower secondary school pupils

attended academic *juku*, and comments that while some observers are very critical of the *juku*. Other praise their effectiveness. Typically children attend for 2-3 evenings per week (Cantor, 1989, p9). There is also a further type of cram school (*yobiko*) for those who are preparing for their university entrance examinations. Possibly as many as half the upper secondary school pupils attend *yobiko*. Those who fail to gain entrance typically take a year (or more) out to attend a *yobiko* full-time. On average a quarter of all students entering university will have completed such a year at *yobiko*; the proportion is higher at the more prestigious institutions (DES 1991, 12). Such is the frequency of this phenomenon that a word has been coined to describe these young people (*ronin*).

The English Inspectorate Report (DES *op cit.* 1991), noting the existence of *joke* and *yobiko* as one of the big differences in education between Japan and England, describes them as institutions

*"which complement the secondary education system and help correct some of its deficiencies"*  
*" (p 27).*

The Scottish Inspectorate Report (SOED 1992), written after a visit to Japan which included visits to *joke* and discussions with teachers and *Monbusho* officials, comments on the range

available, the competition for places, the goal of improved test scores, the large size of classes, and the burden of work imposed on even quite young children (pp 16-17).

A more recent survey by the *Monbusho* (quoted in the Education Herald (May 19, 1993) put the number of pupils attending *joke* in 1992 at four and a half million. While parents might consider this supplementary education a good investment, critics see this as undermining the traditional egalitarianism of Japanese education, and to an extent, robbing children of their childhood.

## THE CURRICULUM

*The data for this chapter has mainly been compiled from published sources. However a small-scale survey was undertaken, to augment the data. In all 71 questionnaires were sent out (in Japanese and English). They were sent to a range of categories of personnel involved in education. 22 responses were received from teachers, 19 from university education faculties or research institutes, 9 from teacher trainers and 6 from others such as educational administrators. While this survey was small in scale, and did not attempt to be representative in any statistical sense, nevertheless the satisfactory response rate (79 %), and the breadth of opinion surveyed lead the author to believe that the results are of educational interest. Where relevant the results of this survey have been included in the ensuing parts of this report.*

In Japan there is a national curriculum prescribed for all schools by the *Monbusho*. This is enshrined in regulations and is detailed in a Course of Study, teachers' manuals and authorised textbooks. The overall aim of such a system is to deliver the same curriculum and quality of teaching to all pupils, and to facilitate movement between schools where necessary. The Course of Study details the number of hours per subject per grade per year, the objectives and standard content of each subject. Textbooks flesh out the content, and along with radio or television broadcasts help to ensure that the sequence of lessons is also fairly uniform. Each school must provide a curriculum which matches the Course of Study. Describing the situation Shimizu writes (1992, p 112)

*"Generally speaking, pupils throughout the country in the same grade study essentially the same material in virtually the same kind of classroom at approximately the same time and pace."*

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1 The word *rosin* means "unemployed samurai" (warrior); a term from a feudal past.

At elementary school, the subjects given most time in the curriculum are Japanese, Social Studies, Arithmetic, Science and Physical Education. Environmental Education has recently been added to this list. Other subjects are Music, Drawing and Handcrafts, Homemaking (less so now), and Moral Education.

The curriculum in lower secondary schools is also largely prescriptive, with a similar range of subjects, but with mathematics replacing arithmetic. Schools can however offer elective subjects for a given total of hours. These might include a foreign language.

At upper secondary school, requirements for the first grade (grade 10) are generally common to all, but courses in the final two years include more electives, and the curriculum thus differs somewhat between schools (Ishizaka, 1990). Pupils must gain a minimum of 80 credits in a range of compulsory and optional subjects, where one credit consists of 35 class hours.

Typical features of the Japanese curriculum are:

- it is demanding. For example, one part of the science curriculum for fourth grade pupils in elementary schools (ie age 9) states that they should have a grasp of: the dissolution of substances varying with water temperature; changes in volume of water and air under different conditions; changes in state of water; how to construct and use scales for measurement of weight; the brightness of a light in relation to circuit type, number of batteries and ways of connection (Bathory et al 1992). Benjamin (*op cit* 1991, p255) considers the curriculum in general to be very demanding by no means a minimum competency curriculum. While there may be a formal opportunity to augment it, in reality there is no time for any extras. She considers that the curriculum is regarded by teachers as fair and good, but possibly too demanding. Despite the length of the school week (five and a half days), there is more than enough to cover.
- It is largely undifferentiated. The SOED Report (*sip cit.* 1992) comments on this feature. It describes a typical classroom where work is paced so as to be manageable by the majority of the class. The authors of the DES Report (*op cit* 1991, p 27) admit to being left

*"wondering how such a wide range of students copes with courses in which all are expected to progress at the same rate through syllabuses marked by high academic content and challenging intellectual demands".*

(It should be noted that not only do a large proportion of pupils attend juku, but also teachers are expected to give additional tuition to slow learners.)

- It is generally knowledge-based and teaching/learning styles tend to be lecturing and rote learning (DES *op cit* 1991, p 28). This is partly because of the volume of knowledge represented in the Course of Study, the examination system (see below) and the size of classes. This uniformity of approach is borne out somewhat by the responses to the survey. 75% of respondents considered that a pupil moving between schools at any stage would be likely to find the teaching method very similar.

However some innovations are taking place: in natural science, at the lower levels, practical work is now more common than before, and in the elementary school and lower secondary sectors the idea of "open education" is spreading (Ishizaka, *op cit* p 44). This new movement, which appears to go hand in hand with the development of open-plan buildings, has necessarily led to change in the method of teaching and learning.

## Textbooks

In accordance with the law, all elementary and secondary schools are required to use textbooks in the classroom, and the texts must be drawn from the list of books authorised by the Monbusho. Local public schools at this level cannot however choose to use any book from the fairly extensive list, the choice is made by municipalities grouped together for this purpose into book adoption areas. Once adopted, a textbook is used for a period of four years (Ministry of Education, 1991, pp 3940). Private schools, national schools and upper secondary schools have more open choice from the list. (In 1990 the list contained 1582 authorised texts as well as 249 texts published directly by the Ministry.) The books, one per subject per grade, are free to all children at national, local public and private elementary and lower secondary schools.

An author or publisher wishing to publish a book for school use must submit a draft to the Minister for examination by the Textbook Authorisation Council (an advisory organ to the Minister). The draft is also examined by officers at the Ministry ("senior specialists") and some part-time examiners who may be school or university teachers. Sometimes books have to be redrafted before final approval is given (Ministry of Education, *op cit* 1991). The overall effect is generally close similarity between different textbooks for any one subject produced by the different publishers (Bathory et al, 1992).

Respondents to the questionnaire prepared for this study, when asked "To what extent are the authorised textbooks and teachers' manuals considered beneficial to teachers" were generally affirming: 51% considered them "somewhat beneficial" and 44% "very beneficial".

While the regulations governing textbook authorisation have been simplified and made a little more open (revised regulations in 1989), the system is not without its critics. Horio (*op cit* 1989, pp 16-17) describes the less repressive system which now operates as somewhat more insidious than that which went before. He considers that, rather than meeting its overt aim of eliminating political bias from materials used in classrooms, rather it constitutes a covert attempt to suppress information which does not fit in with the State's view of the kinds of knowledge appropriate for Japanese youth. Horio describes this system as an assault on scholarship and academic freedom. Academic freedom has been the subject of legal battles over many years, perhaps the best known being the long campaign by Professor Ienaga. Justice Sugimoto eventually ruled for academic freedom, thereby imposing limits on the activities of the State's educational administration (Horio, *op cit* p 189). However the Supreme Court has recently overturned this decision. Changes may be occurring: in a recent article in the Times Educational Supplement ((TES) 2.7.93) it was reported that approval had been given to history texts which were less uncritical of Japan. While this may signal a new openness, doubts about the textbook screening process remain, especially in relation to social studies.

There is also the "supplementary curriculum"; commercially available supplementary materials including problem books, reference books, materials for the gifted and for correspondence courses (Ishizaka (1990, p42).

## Control of the Curriculum and Curriculum development

Curriculum development or revision is built into the curricular framework, and occurs approximately every 10 years in a systematic way (Ishizaka *op cit* p 24). Recent lower secondary curricular revision, for example, has led to the introduction of a course in computers, this subject is shortly to be introduced at upper secondary level too (TES 28.5.93).

There are five procedural steps in curricular revision: the Minister's request, the Curriculum Council report, revision of the Course of Study, implementation in schools, and appraisal of the revision. There is very little opportunity for practising teachers to have any say in curricular development. It is a "top-down" model, backed up by efficient implementation. Teachers are



well paid, and perhaps more compliant than in countries where the compulsory stages of education are less well resourced.

A more radical revision or reform of education, including the curriculum, was considered necessary in the mid 1980's, and for this purpose, the National Council on Educational Reform was established, to report directly to the Prime Minister. On receiving the first report of this Council, all members of the Cabinet were involved in deliberations (Ministry of Education, 1991). Various problems were pinpointed, namely:

- a social climate in which too much value is placed on academic pedigree;
- excessive competition in entrance examinations;
- an increase in behavioural problems such as bullying;
- an inflexible structure and method of teaching;
- a need for more responsiveness to technological developments and to a growing internationalism;
- a lack of creativity among school pupils, due to over-emphasis on memorisation in classroom instruction.

The chairman of the Council, when submitting the first report to the Prime Minister in 1985 considered the most important area of reform to be the need to put emphasis on individual differences (Ishizaka, *op cit* 1990, p 27). The report led to the issue of a policy document in October 1987, setting out a strategy for educational reform. The main strands of this policy were to:

- develop a lifelong learning system;
- reform textbook authorisation procedures, and change the emphasis of the school curriculum;
- reform aspects of university education, including the entrance examination system;
- encourage academic research in universities;
- emphasise the international aspects of education;
- reform administration.

However by the time it had gone through all the official channels, including the Curriculum Council, some of the proposals appeared to have been "watered down", for example in relation to the primacy of individual differences, and the need to reform the entrance examination system. New Courses of Study introduced progressively from 1989 onwards did attempt to address individual differences and to loosen the curriculum at the upper secondary stage, but would appear to have had only limited success. In response to the question "To what extent do you consider the recent curricular revisions have catered for individual differences among pupils?" 70% replied with either "scant attention" or "no attention". And despite the strong central control of the curriculum and its development, examinations continue to exert a powerful brake on curricular change. We now turn to look more closely at the examination system in Japan.

## EXAMINATIONS

Japan has no national system of examinations; instead there exists a maze of testing and procedures for selection to the next stage of education conducted by individual institutions. This lack of a national system is justified on the basis of what could be termed strong "input" control: a common curriculum (revised at regular intervals and prescribed at every stage); a well-trained and well-paid teaching force; equity of financing at the compulsory stage of schooling and a free and liberal supply of textbooks from a prescribed list. Any attempts to control outputs (for example school inspection or national examinations) have been viewed with a degree of suspicion by teaching unions. Attempts to introduce a nationwide Scholastic Achievement Test were widely unpopular, and were the subject of many law suits (Horio, *op cit* chapter 8).

### Common features of examinations across the stages

#### Purpose of examinations

The purpose of examinations in Japanese schools is pre-eminently that of selection. Tests taken even a few years before transfer to the next stage are related to this purpose; they are designed to raise pupils to the standard required for particular entrance tests, or to check which entrance test the pupil would have the best chance of passing. A certificate or diploma does not facilitate entry to the next stage; only an entrance exam does this, as described by Professor Amano in his historical analysis of the development of the Japanese examination culture (1990, p 214).

School entrance examinations function as starting gates in the race for higher-level careers. This phenomenon, deeply rooted since 1900 (Amano, *op cit* p 219), functions in the following way: big corporations, offering the best career prospects, recruit from universities and upper secondaries with the highest entrance requirements (Benjamin, *op cit* p 256). This exerts pressure backwards on to the schools to compete against each other for such institutional status and success for their pupils.

The pressure is increasingly affecting lower and lower stages in the system. If a child can gain entry to a high status institution at an early stage, he/she will to an extent be assured a place at the next stage. Such preferential entry does not get rid of examination pressure; it merely pushes it further down the age bands. Some children now sit tests to enter prestigious kindergartens. This relationship between entrance examinations and future career prospects is deeply embedded in Japanese culture in which educational credentials are linked strongly to social status and prestige (Amano, *Op cit* 1990).

The primacy of selection as a purpose for examinations has side-effects on both the schools and the individual pupils. In relation to schools this system creates a league-table, particularly marked at the upper secondary stage where examination "stakes" are at their highest. The competition between schools has been described as over-heated (Shimuzu 1992, p 113), with the rise of the *juka* being symptomatic of this competition. The status of any school is now inexorably linked to the demands of its entrance tests. Even when several upper secondary schools within a prefecture use a similar test (ie a prefectural scholastic achievement test), each school has a different cut-off score for admission (Benjamin, *op cit* 1991).

Secondary teachers have little option but to see as their prime function the provision of guidance on which options are open to pupils at the next stage. Newspapers publish "going-rates" (ie the number of applicants and probable test scores required for successful candidates (Benjamin, *op cit.* p 259)): a publishing industry flourishes on these parental anxieties.

### **Importance to the individual: stakes of testing**

The importance of examination success to the individual in Japan can hardly be over-stated. This importance, and the resultant pressure, mounts as a pupil moves through the stages of schooling: it is particularly salient at the secondary stages. At the stage of entrance to upper secondary school for example, if pupils fail the particular entrance examination to local public schools chosen by their parents, they must either leave school altogether or find private schools willing to accept them (Benjamin, *op cit* p 259). (At the next stage of education, entrance to higher education, there is the further option of attending full-time *yobiko* for a year before re-sitting an entrance examination.)

Many commentators such as Horio have noted the rise in behavioural problems among the young, particularly among adolescents at lower secondary school. Their anxieties are manifested in classroom violence, bullying, absenteeism and even suicide. The Monbusho describes these behaviours as "maladjustment to school activities" and prescribes more guidance and moral education (*op cit*, p 118).

### **Type and frequency of examinations**

Most class-based testing is based on subject knowledge and is generally quite closely aligned to the textbooks. Most of these tests are generated by the teachers; they are frequently knowledge-based and objective in format. Much of the examining is geared to the production of norm-referenced information, ie ranking pupils via a *vi*: one another so as to make selection easy, rather than judging them against a particular standard of attainment. School-based achievement tests, for example, generally rank pupils on a five-point scale, with 5 being the highest. Parents are particularly interested in this type of information. Entrance examinations are generally subject-based as well, frequently objective, but although matched to the national curriculum, cannot be as closely aligned to a particular textbook. In preparation for the round of entrance tests schools frequently administer commercial tests: the results help them advise parents about the rung on the ladder of entrance tests to which their child could aspire. As a pupil moves up the stages of schooling, objective testing tends to edge out open-ended responses.

The frequency of testing gathers pace as pupils move up through the stages of schooling. At lower and upper secondary, within a subject such as science, teacher-constructed tests are normally administered 5 or 6 times a year at fixed intervals (Bathory et al. *op cit* 1992, p 308-9.) In relation to lower secondary and upper secondary, respondents to the survey reported the frequency of "a formal test in any subject" as typically more than four times a year.

There would therefore appear to be layers of testing at each stage, all focused on the next entrance hurdle. While this examination system affects each stage of schooling, the backwash effects get stronger as one progresses through the stages, and as the stakes get higher.

### **Difficulty inherent in reform**

The cultural consensus behind the basic structure of education is very strong, and consequently it is difficult to envisage reform of the examination structure. Control over it is also quite diffuse and this feature would make change difficult. Benjamin (*op Lit* 1991) concludes that

*"There is no massive sentiment that schools are failing, are not teaching children, are destructive to children's psychological well-being or that they unjustly reproduce an unjust social order."*

Three-quarters of the respondents to the survey however reported awareness of pressures within society for change to the examination system. The categories from which most pressure was judged to be visible were pupils and teachers (mentioned by 61% of respondents), and to a lesser extent, parents (56%). Little pressure was detected from universities (24%), employers or government (both 15 %).

### Particular features of the examination system at each stage of schooling

#### Elementary stage

The elementary stage is the least examination-oriented of the three stages. Class-based testing of attainment in Japanese and arithmetic is common (SOED, *op cit.* p v). For those who wish to attend other than a local public school at the next stage, there is preparation for entrance tests. These tests would generally be administered in basic subjects only.

#### Lower secondary stage

Shimizu (*op cit.* 1992) describes the lower secondary school as being at the interface of the two cultures in Japan; the egalitarian culture (as evidenced in the assumption that given equal treatment, most pupils, with hard work, can succeed) and the highly stratified culture mediated through entrance exams. These schools, which on one hand offer pupils a common curricular experience up to the official school leaving age, have to be the agents of a system which allocates pupils to educational (and eventually social) positions in the hierarchy. Most families aspire to a high-status upper secondary school for their children, so one of the main functions of the lower secondary schools is to prepare the pupils for the demands of the entrance examinations for the next stage. Age twelve therefore marks the beginning of what has been termed the "examination hell". Testing is regular, with a written test in each subject, even in music and art, once or twice a term. Pupils aim to gain a maximum score over 8 subjects ( $8 \times 5 = 40$  points) in their final report from lower secondary. This information is passed on to the upper secondary school, but given that such information is unstandardised, the receiving school administers further (commercial, standardised, multiple choice) entrance tests. Thus the credentials gained at lower secondary merely allow one to attempt the entrance hurdle, not to clear it. Not only that, but given that the status of the lower secondary is dependent on the success of its pupils in securing places at prestigious upper secondaries, to ensure that pupils are able to pass the entrance hurdle, the lower secondaries have to administer practice-tests of a similar format to the entrance tests. Pupils may have to sit these tests three or four times in their second year of lower secondary, and as many times again in their third year. Add to this their possible attendance at joke, where testing has been honed to a fine art, and the effect of examinations can be seen to be pervasive and negative in terms of curriculum development.

Examinations are almost all written. Shimizu (*op cit.* p 117) cites very high correlations between test scores on all subjects, the correlations increasing from grade 7 to grade 9 (eg Japanese and social studies,  $r = .85$ ; Japanese and music  $r = .77$ ).

The ranking from class tests is combined with continuous assessments to produce grades. These grades are a major input to career counselling. Each receiving school sets its own test (DES, *op cit.* p9). Groups of teachers decide who should sit which entrance test. This process is called "*shinroshido*". There appears to be some ambivalence in the teacher's role in this process; as gate-keeper, innocent yet complicit. They try to target pupils to the system, so as to minimise chance of failure (Shimizu, *op cit.* p 123). This can be viewed, as education and selection carried out without conflict or as institutionalised social control (Horio, *op cit.* p 280-281). While entrance examination results are the arbiters of who will get to prestigious upper secondary schools, grades play their part in determining which entrance exams a pupil will sit.

### **Upper secondary stage**

By this stage schooling is intensely competitive. Once entrance has been secured, pupils continue to be assessed in each subject by teacher-constructed tests and more formal end-of-year tests. As in the case of the lower secondary stage there is a graduation certificate, but it is of less importance than the next battery of entrance examinations necessary to gain entry to higher education. For those who have appropriate school-based qualifications for higher education there are still various hurdles to clear.

One such hurdle is the common university entrance test, introduced by the Monbusho in 1990 in an attempt to improve selection procedures for universities. Universities were encouraged to take up this new examination as part of their selection procedures, but as it was made optional many have not done so. Where they have included it as a screening device, it has merely added a further layer to the entrance procedure; it has not eliminated any exams or reduced the burden on entrants.

The next stage in the process involves potential entrants in achievement tests in up to 8 different subjects. This can take 2-3 days. Each university sets its own papers, but whereas content might vary, the format is almost always multiple-choice. Some include aptitude tests as well as subject-based achievement tests. Credentials submitted by the upper secondary school on behalf of the candidate can also be taken into account, and recently more students have been admitted on recommendation. The weighting given to these components varies between types of institution. Respondents to the author's survey were asked how important the various categories of information were to a Japanese pupil who wished to attend (a) a national university, and (b) a private university. Possible responses were crucial, very important, quite important and not important. While all five types of information (ie on-going ranking in achievement tests, commercial tests, the common entrance test, other university entrance tests and a recommendation from school) were judged at least "quite important" in the case of both national and private universities, those which were judged "crucial" by the majority of respondents varied depending on which type of university was considered. The common university entrance test was judged "crucial" in the case of the national universities, while a recommendation from the school was "crucial" in relation to the private universities. In both cases the other "crucial" piece of information was judged to be the results of the examinations set by the individual receiving institution. Given the variation which exists, it is easy to deduce that much teacher and pupil energy must be channelled into this procedure.

Nor can the pupil in need of extra examination tuition necessarily expect to get automatic entry to *joke* or *yobiko*. Competition for places in a reputable *jute* can be great. Screening tests can be applied to potential entrants. (The SOED Report (oh cit. 1992, p 16-17) cited an example of a *joke* visited which applies its own screening test and accepts approximately one in five 4th-graders for its two-year course designed to prepare pupils for junior high school entrance examinations.)

### **EFFECT OF EXAMINATION SYSTEM ON CURRICULUM DEVELOPMENT**

At one level it could be said that the examination system in Japan has no effect at all on either the curriculum or curriculum development. The curriculum is under the control of the Monbusho

and development is a built-in feature, occurring at regular intervals. The Monbusho has only marginal control over the examination system, given that the new common entrance test remains an option for universities. The prefectures too have only a small part to play when compared with the power of individual schools and higher education institutions to set their own entrance criteria. However, that would be a simplistic analysis of the situation. The examination "system", this summation of unintegrated tests and examinations, has an all-pervasive effect on the schooling process, increasingly so as a child moves up through the stages from kindergarten to higher education.

Nevertheless it would be hasty to assume that all the effects are negative: survey respondents were asked, in relation to a high stakes test for pupils at senior high school, to rate particular effects of such testing, on the scale very much, a considerable amount, a small amount and not at all. Considering only responses in the categories "very much" and "a considerable amount" 6 out of 10 survey respondents considered that the examinations perform the useful function of clarifying the curriculum and the standard expected, and almost the same proportion (58%) considered that examinations help raise standards.

More negative effects mentioned by respondents, again coded as "very much" or "a considerable amount", were the way in which examinations control curricular content (73 % responded in these two categories); that they encourage the use of practice tests and lead to greater value being placed on memorisation of facts than on understanding (both 58%).

54% of respondents judged that the effect of exams on the relatively greater value attaching to theoretical knowledge compared to practical knowledge, ie "knowing what" compared to "knowing how", warranted such a rating.

In a more general question about issues associated with testing, 79% considered over-zealous preparation for examinations a problem. The next most commonly perceived problem was the degree of competition between schools (59%), and between pupils (54%). A similar proportion of respondents also mentioned the alienation of low achievers (55%) and the increase in a test-driven curriculum (52%). When asked to make an overall judgement about the extent to which such testing has a good or bad effect on the curriculum, the results were as follows:

very good effect	22%
good effect .	18 %
neither good nor bad effect	36%
bad effect	29 %
very bad effect	13%

The results of this small survey suggest that the effects on the curriculum are more negative than positive. It is interesting to explore to what extent they align with the literature on this matter.

Many commentators note the high academic standards achieved by Japanese pupils. Cantor (*op cit.* p10) suggests their mathematical ability is probably the highest in the world, and this assertion is backed up by international comparison studies; the SOED Report (*op air*, 1992 p 10,12) were particularly impressed with the achievement of children of lower ability in elementary schools. Praise however is frequently qualified with a comment on the examination pressure under which pupils work.

Shimizu (*op cit.* 1992 p 117) states that, given that the over-arching aim of lower secondary schools is to help pupils attain high scores in entrance examinations to upper secondaries, this leads to a style of teaching which is primarily based on memorisation and drill. He also mentions that the form of examinations, rarely practical or oral, affects the way in which the curriculum is taught. Writers with an international background such as Cantor (*op cit.* p 9) comment on the domination of the curriculum by the need to acquire subject knowledge with a view to good performance in student tests. In relation to language teaching in upper secondaries the DES Report (*op cit.* p 11) noted the lack of attention to oral communication, and related this directly to the lack of credit given to such aspects in assessment. Testing, being largely written, concentrates on reading comprehension, grammar and syntax. In the case of science, it is noted that experimental work declines up the stages as examination pressure build (Bathory et al *op cit* p 308). And whereas Japanese pupils usually perform well in terms of international comparisons of progress, they fare badly in international tests of practical work (Tamir and Doran, 1992, p 405). Narrowness of test content and type is also mentioned by Horio (*op cit.* p 305). He suggests that when a narrow range of intellectual abilities is given too much importance (in tests, and thus in the curriculum) the result is people who lack both creativity and curiosity. He sees

testing as the prime means by which schooling in Japan has been transformed into an essentially anti-educational undertaking (*Op cit.* p 353).

Benjamin (*op cit.* p 258) notes the shift in teaching method from group activities to lectures at the lower secondary stage; a necessary change to accommodate the rigours of the impending examinations. Ishizaka (*op cit.* 1990 p 43) admits that too frequently Japanese education has put too much emphasis on testing, and children have been forced to cram in facts under an inflexible teaching method.

Entrance examinations, and the array of tests which help prepare pupils for them, are high stakes, both for individual pupils and for the status of the institution. One of the main effects of such a situation is to preserve the status quo, to quash attempts at a novel approach either in relation to a developing content or a developing pedagogy. This situation is least pervasive at the elementary stage, where some curriculum experimentation is possible. Many writers refer to curricular distortion and subjugation to the demands of the examinations of receiving institutions (eg DES *op cit.* p 28, Amano, *op.cit.* p xix, and Ishizaka, *op cit.* p 51).

These high stakes have spawned the judo and yobiko, establishments in which the curriculum is directly subservient to the needs of the entrance examinations. Yobiko for example use standardised testing, nationally- normed to provide information to students about which entrance tests to sit. The question arises as to whose benefit is served in this testing "industry"?

It would appear that the results of the survey, albeit of a "dip-stick" type, are confirmed by the evidence of educationalists while the Japanese examination system provides a powerful mechanism for the motivation of pupils to learn, and fits well with aspects of the Japanese culture, nevertheless it puts a very large burden on pupils and a brake on curriculum development in terms of both what is taught and how it is taught.

## CHAPTER 6 SCOTLAND

### BACKGROUND

In terms of population Scotland is the smallest of the seven countries in this study with a population of only 5 million: Japan has 25 times as many people, and the USA 50 times as many. The average population density is moderate (65 per square kilometre), with a high concentration in urban areas. Its population is virtually static in terms of growth, and consequently, as people live longer, there is an increasing proportion in the older age-groups. Table 1a shows these demographic features. The youthfulness of the population, described as the number in the 0-14 age-group expressed as a percentage of the number in the 15-64 age-group is one of the lowest of the seven, at 28 % .

GNP per capita (based on a United Kingdom average) is considerably lower than for either Japan or the US, and somewhat lower than for France. However, in relation to Colombia, Zimbabwe or Egypt, Scotland is favourably placed (see table 1a). In terms of the current distribution of household income, in the UK as a whole in 1993 the lowest 40% of households in income terms share 17% of total household income, while the highest 20% share 40% of the total (UNICEF 1993). These figures are not dissimilar to those of France and the US; are somewhat less equitable than those of Japan or Egypt, but more equitable than in the case of Colombia. However, the gap between rich and poor has noticeably widened throughout the 1980s and 1990s. Statistics on child poverty, mainly an urban phenomenon in Scotland, formed part of a recent local authority report about conditions in Scotland's largest city, Glasgow. A series of conditions which impinge on the education of children were catalogued: unemployment at 15% (25% among the under 24's), one in three on income support (ie a benefit paid from central funding to augment low income), and half the children receiving clothing grants. Health statistics corroborate the dismal picture, with half the population of the study living in areas classified as "most deprived" by the Greater Glasgow Health Board (Scotsman, 8.10.93). Such levels of poverty however are relative to living conditions in Scotland, and do not provide a comparison with other countries in absolute terms.

The percentage of GNP spent on education - again for the UK - is 4.7%, but going down. This is a similar proportion to Japan. As in Japan, educational funding policy is geared to iron out financial differences between schools; a major component in decisions on school funding has been, and remains, the number of children in the school. However, given the highly urbanised nature of the population, and the tendency within cities for social stratification, wide differences occur between schools in terms of social and cultural resources.

One enduring facet of Scottish education, which to an extent marks it out as different from the English system, is its origin in a deeply-rooted democratic culture. For more than a century education has opened doors to children of families of modest means, and education has largely enjoyed public support.

### GENERAL FEATURES OF THE ADMINISTRATIVE STRUCTURE OF EDUCATION

The Secretary of state for Scotland is responsible to the UK parliament for the overall supervision and development of education in Scotland, including further and higher education. These functions are delegated to the Scottish Office Education Department (SOED). The SOED formerly the Scottish Education Department (SED) - comprises an administrative service (with departments for such aspects as the different stages of education and school building) and an inspectorate body. Policy-making is largely at this national (ie Scottish) level.



Up until the 1990s Scotland had a more centralised system of educational control than England. since then there has been a tightening of central control in both countries, most particularly in England. There have been significant curriculum and assessment policy initiatives in the 1980s and 1990s which have led to a convergence between the Scottish and English systems of education (see below). Writing in 1967, Osborne commented that Scottish sensibilities were quickly aroused if policy decisions appeared to have emanated from London. It would appear from the lively educational press that such sensibilities have not changed.

Local government also plays an important, and to a large extent, an independent role in the delivery of the educational service. Each local authority (of which there are 12 regional or island authorities) is legally-required to appoint a Director of Education, and an education committee made up of democratically-elected councillors and nominated representatives of educational and public bodies. The professional education directorate is responsible to this committee for the administration of the schools within its area. However this arrangement may alter in the near future: current government policy is for re-organisation of local government from 1994, with 25 single tier councils replacing the 12 regional and island councils (Consultation document 1993, The Internal Management of Local Authorities in Scotland). With this reorganisation comes the possibility that the legal requirement for an education committee and a director of education will be dropped, and where councils choose to have such a committee, the right to teacher representation on it will no longer apply (The Herald, 17.9.93). The Scottish Parent Teacher Council, an influential body in Scottish education, was recently reported as saying

*"We are concerned about whether the new authorities will give education the proper priority because many will have no experience of education whatsoever. The district authorities have never dealt with education before."* (The Herald, 30.8.93)

The Association of Directors of Education (ADES) is also unhappy about the proposed changes. In a letter to The Herald (28.9.93) the General Secretary stated that ADES predicts massive teacher and parent unrest about this change in direction.

Two other current policies which are changing the balance in the power-sharing, which has been a hallmark of Scottish education for a considerable time, are "opting-out" and Devolved School Management (DSM). The Self-Governing Schools etc (Scotland) Act of 1989 provides for any local authority school to seek self-governing status - ie to "opt-out" of local authority control provided there is a school board in place. (School boards were set up in the late 1980s: they comprise elected parent and teacher representatives and nominated community representatives.) A school which opts-out becomes self-governing, run by its own board of management and receiving funding directly from the Secretary of State. To date, only one school has achieved such status, and in the case of the few schools which have considered it, the reason has been some grievance with the local authority, generally a threatened school-closure due to demographic change. There has been no ground-swell of schools wishing to cut adrift from the local authorities.

Devolved School Management (DSM), on the other hand, has attracted more support from schools. In fact several similar local authority initiatives pre-dated the government's version of delegating more control over budgets to schools. This policy appears to be more attuned to the Scottish educational culture than "opting-out" and has received less criticism. While some would see it as a means of enfeebling the local authorities, others see it as an opportunity to strengthen relationships between schools and local authorities. Under DSM, authorities will be responsible for strategic decisions only, such as matching provision to demand for school places, supplying specialist services, and monitoring school performance (The Herald 17.9.93).

The division of responsibilities between local authority and school, on the one hand, and between local and national government on the other hand has been in a state of flux since the late 1980s. Writing in 1988, Willis Pickard, one of Scotland's best-known educational commentators, gave a critique of the political context of the various pieces of educational legislation, which together sought to align parents with central government against teachers and local authorities; legislation which put the parent in the position of consumer and the teacher in the position of skilled technician. He judged this partly as a way of the government "getting back" at a teaching force which had almost put a stranglehold on the curriculum reform of the early 1980s (ie the introduction of Standard Grade courses for pupils in the final two years of compulsory schooling). More recently, at a conference of the British Educational Management and Administration Society, a Scottish Director of Education was reported as stating that the links of the past are giving way to

*"a more confused series of partnerships which are increasingly fragmented and divisive."*  
(Times Educational Supplement (TES) 17.9.93)

At the same conference Scotland's Senior Chief Inspector of Schools agreed that the tripartite relationship between schools, local authorities and central government had changed dramatically, and acknowledged that there was now greater government control (TES 17.9.93).

### **Teacher-training and registration**

Pre-service teacher-training is undertaken either at a college or institute of education - of which there are 4 - or at 2 of the Scottish universities. There are two types of training course: a four-year bachelor's degree or a one-year post-graduate diploma course.

The current debate in teacher-training concerns the balance between time spent learning about education and time spent on teaching-practice. Humes writing in the TES (18.12.92) describes the move to decrease the former as a de-professionalisation of the teacher.

Once qualified, all teachers in state schools are required to register with the General Teaching Council for Scotland (GTCS). This is a self-financing, independent but statutory body, with representatives not just of the teaching force, but also of the employers (local authorities), universities, training institutions and churches. It maintains a register of qualified teachers, advises on teacher supply, oversees standards of entry to the profession and of pre-service teacher-training courses, and sets and maintains standards of conduct for teachers. The GTCS was established in 1965 and has rapidly acquired a role and status in Scottish education, reflecting the democratic traditions of Scottish education.

Relationships in the area of in-service training are changing as the previous collegiate model is being replaced by a customer-contract model: schools now have to pay for training provided by colleges.

## **BASIC FEATURES OF THE EDUCATION SYSTEM: AGES, STAGES, TYPES OF SCHOOL, CLASS SIZE AND PARTICIPATION RATES**

### **Ages and stages of education**

Nursery education (kindergarten) in Scotland is not compulsory and is variable in terms of provision nationwide. Virtually all children in nursery education are aged 3 or 4. At September 1991, 19% of 3 year-olds and 49% of 4 year-olds were attending local authority nursery schools, the vast majority (85%) on a part-time basis. Between 1981 and 1991 the percentage of 3 and 4 year-olds attending nursery school rose from 28% to 35% (The Scottish Office Statistical Bulletin: Education Series, June 1992). This provision is augmented by various other private nurseries, and playgroups organised by groups of parents.

Compulsory education starts at age five, with the primary stage lasting for 7 years (P1 to P7) ie until age 12. Larger schools divide the primary stage into infants (P1 to P3) and upper primary (P4 to P7). Compulsory secondary schooling lasts 4 years (S1 to S4) ie until age 16, but pupils may stay on for a further one or two years (S5 and S6).

### **Types of school**

All local authority primary and secondary schools are non-selective schools. (There are therefore no selection or promotion procedures at any stage in a pupil's career.) In the secondary sector the vast majority of schools are 6 year comprehensive schools. In some rural areas of the Highlands and Islands junior high schools are found, with pupils transferring to a 6 year school after S2 or S4. Each primary school has a catchment area, and each secondary a group of "feeder" primaries. Since 1981, however, parents have been able to apply for their child to attend a school of their choice. Such "Placing Requests" in 1990-1991 represented 34% of the school population. This represents a very small increase since 1981 (The Scottish Office Statistical Bulletin: Education Series, July 1992).

There is a small, parallel private sector in Scottish education, educating approximately 3% of primary pupils and 6% of the secondary pupils (Basic Educational statistics (Scotland) 1991). Some of these schools operate a selection process.

Children with disabilities are, wherever possible, educated in mainstream schools, with the help of Learning Support teachers, but special schools for the severely-handicapped are provided by local authorities.

### **Participation rates**

Compulsory schooling ends at age 16. For almost all pupils who wish to leave, this comes at the end of S4. Up until S4 participation rates are virtually 100%. The staying-on rate among 16 and 17 year olds has increased each year since 1984 and it is projected to continue rising. Of the whole age cohort, only 47% now leave before S5, a further 27% complete S5 but do not stay on for a sixth year, while the remaining 26% complete a sixth year (The Scottish Office Statistical Bulletin: Education Series, May 1992). This increased staying-on rate, mirroring as it does the trend in youth unemployment, has had major implications for the curriculum and examination system of the later stages of secondary education (see below).

### **Class size**

There was a major demographic downturn in school population between 1976 and 1990, but more recently a slight increase has taken place (Scottish Office Bulletin: Education Series, September 1993). Class size varies considerably, but some generalisations can be made. The maximum size of class allowed is 33. Nationally the average figure for primary schools is 25

(with a pupil-teacher ratio of 20). Secondary classes are generally smaller than primary classes. This is partly due to a secondary curriculum offering more choice and the fact that practical subjects in the secondary school, including science, generally contain no more than 20 pupils. The national average class size in the secondary sector is 19. A relatively lower pupil-teacher ratio of 12 reflects the management structure of the larger, secondary schools (The Scottish Office Statistical Bulletin: Education Series, June 1992). Rural primary schools sometimes have composite classes, ie classes in which pupils from more than one age cohort are taught together.

## THE CURRICULUM AND EXAMINATION SYSTEM

*Data for the ensuing parts of this report are based not only on published sources but also on a survey of secondary schools and the various bodies with an interest in Scottish education (hereafter called Interested Bodies or IBs). A stratified random sample of 67 secondary schools was selected to receive a questionnaire (approximately 1:8 of all secondary schools). In addition 49 IBs were sent a copy, namely teacher and adviser organisations (8), the Inspectorate (5 copies); the Scottish Consultative Council on the Curriculum (SCCC), colleges of education (6), the Scottish Vocational Education Council (SCOTVEC), the GTCS, educational research organisations (3), the Scottish Parent Teacher Council, local authority Directors of Education (17), and University Departments of Education (6). Size response rate for schools was 96%, and 71% for IBs. (The inspectorate and university departments of education did not consider themselves to be in a position to respond. Omitting these 11 questionnaires, the response rate for the other groups was 92%.) Overall therefore this survey should present representative opinions on a range of issues surrounding the question of the impact of examination systems on curriculum development in Scotland.*

### Control of the curriculum and examinations: general

It is difficult to separate policy-making related to curriculum from that relating to examinations in Scotland, particularly in a discussion of the secondary stage of education.

Traditionally, control of the curriculum in Scottish schools was vested in local authorities, with much of the decision-making delegated to schools. Control from the centre was mediated through reports which attempted to disseminate good practice, rather than by legal requirements, and by a professional inspectorate which monitored what actually took place in Scottish classrooms. Changes in the curriculum came about fairly gradually through the dissemination of the findings of Advisory Councils; these were committees composed of representatives of the educational community. Inspectors were assessors to, rather than members of, these committees.

### Control of the curriculum and examinations: secondary stage

One of the most seminal of these Advisory Council reports in relation to secondary schooling was the sixth, published in 1947. Among many ideas put forward, it supported the return to the traditional "omnibus" school (secondary schools catering for all abilities), a common core of subjects up to age 16, certification for all ability levels prior to leaving school, an examination body which reflected educational and societal interests, and externally-moderated school-based assessment. This report set the educational agenda in Scotland for years to come, and while appearing unexceptional today, was particularly far-sighted in 1947. The SOED response to this report (Circular 216, 1951) upheld external examinations as a means of ordering the curriculum raising and maintaining standards, modernising the curriculum and avoiding the need for University entrance examinations.<sup>1</sup>

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*1 For a comprehensive history of public examinations in Scotland, and how they have influenced the development of secondary education see Philip. H L (1992), and for an analytical overview of the making of Scottish educational policy since 1945 see McPherson and Raab (1988).*

By 1958, however, the SOED had recognised that curricular change was unavoidable. In its Report of the Working Party on the Curriculum of the Senior Secondary School (ie selective schools for academic pupils) it recognised that the curriculum and examination system were inappropriate for all but the most academically-gifted pupils. It suggested the replacement of the Lower Grade of the Scottish Leaving Certificate (a certificate taken in S5, after the majority had left school) with a subject-based examination (Ordinary Grade) aimed at the top 30% of the age cohort at the end of S4. The existing examination for those staying on for a fifth year, the Higher Grade, was largely endorsed as a suitable target for this age group.

A year later the 1960 Advisory Council produced a report (The Knox Report) which endorsed the Higher Grade but added a recommendation for an Advanced Grade for sixth year pupils. It also recommended the setting up of an Examination Board, with teachers participating fully at all stages of all examinations (Philip, 19.92, p 131). (Examinations were administered by the inspectorate until 1965. Presentation numbers were growing rapidly, and as Philip - himself an inspector at that time - writes, the task was becoming a struggle against an increasing flood of presentations (*op cit.* p 135)).

Another influential Advisory Council produced the Brunton Report in 1963. This particular report focused on the need to provide a curriculum for the less-academic pupil. Curriculum differentiation was by then firmly on the agenda.

In 1965, the responsibility for administration of the Higher Grade and the introduction of Ordinary Grade examinations passed from the inspectorate to the Scottish Certificate of Education Examination Board (SCEEB). The SCEEB - now the Scottish Examination Board (SEB) - was constituted as a statutory body with the right to initiate advice to the Minister, as well as to respond to SOED policy decisions. The Secretary of State retained the right to make the final choice of members of the Board from the nominations of the various representative bodies (Philip, *op cit.* p 135). This remains the way in which Board members are appointed.

In the same year as the SEB administered its first examination diet (ie 1965), the SOED set up a standing advisory committee on curricular matters, to replace the Advisory Councils, and to provide a counter-balance to the SEB. This was the Consultative Committee on the Curriculum (CCC). The CCC - now the Scottish Consultative Council on the Curriculum (SCCC) - was constituted in such a way as to draw curriculum control into the centre (Gatherer, 1989). The Chairman was the Secretary for Education (a senior civil servant), members were appointed by the Secretary of State from nominations received from representative bodies, the address was that of the SOED, and the secretariat was within the SOED.

The SCCC was the parent-body for a range of stage-related (ie Primary and Secondary) and subject-based central committees which in turn produced curriculum papers. The influence of these curriculum papers gradually percolated down to schools, largely through a burgeoning local authority advisory service. This in turn fuelled a school-based curriculum development phase during the late 1960s and 1970s. Secondary teachers at this time, though weighed down with responsibility for designing new curricula, were central to the process of curriculum development.

Initial teacher distrust of the SCCC and SEB eventually faded as these bodies built up a reputation and an organisational structure which was representative of a wide range of interests in education, and a generally consultative approach. Although part of a centralised system, both organisations gradually assumed a degree of independence of the centre. Each cultivated direct links with the teaching profession: in the case of SEB, this was through its dependence on practising, professional teachers to serve on subject panels, to mark scripts, moderate assessments and make decisions about standards; in the case of the SCCC this was through having teachers on working parties and - more recently - curriculum support groups.

The major current players in the area of curriculum and examination policy-making were therefore in place by the mid 1960s. By the mid 1970s there was concern over the curriculum of the middle stages of secondary schooling. This concern arose following the effects of raising the school-leaving age to 16 in 1972, and a decade of piecemeal curriculum development. The SOED therefore invited the SCCC to constitute the Munn Committee in 1975, with a remit

*"to consider how the curriculum at S3 and S4 should be structured in order to ensure that all pupils receive a balanced education suitable to their needs and abilities; to consider the implications of its findings for the earlier and later stages of secondary education; and to make recommendations to the CCC. "*

This report, "The structure of the Curriculum in the Third and Fourth Years of the Scottish Secondary School" (The Munn Report) was published in 1977. It was broadly accepted and still shapes the secondary school curriculum today. It recommended a curriculum based on 8 separate modes of knowing and interpreting experience (for example, literary and linguistic studies, creative and aesthetic studies, social studies). The modes were to be embodied in a core plus options curriculum for all pupils, with the core - in which choice would be constrained - covering the 8 modes and the electives allowing a greater degree of personal choice. It advocated 3 overlapping syllabus levels to take account of differences in ability.

In the previous year, 1974, a parallel committee on assessment, The Dunning Committee, had been constituted by the Secretary of State. This came about through the recommendation of SEB, which was concerned at the number of non-academic pupils sitting Ordinary Grade for whom the syllabus and examination was too academic. The remit of this committee was

*"to identify the aims and purposes of assessment and certification in the fourth year of secondary education in the light of educational and social changes. . .; to consider what form or forms of examination or assessment would be most likely to meet the needs of fourth year pupils of varying academic ability; to make recommendations for any changes in the present arrangements that might seem desirable and to consider the effect of such on the Higher Grade . . . and on the Certificate of Sixth Year Studies " (CSYS)*

This report, "Assessment for All", was published in 1977. It recommended awards at three levels in S4, Foundation, General and Credit in most subjects, based on overlapping syllabuses. It also broke with the tradition of full external assessment by recommending an internal school-based component in the assessment of each subject. With their resonances of the 1947 Advisory Council report, these two inter-related reports have had far-reaching effects on the secondary stage of education.

However while both the Munn and Dunning Report were received with general approval by teachers, the implementation period was protracted and difficulties ensued. First there was "Proposals for Action" (SOED, 1978) and a Feasibility Study (SOED, 1979). A change in government intervened in 1979, and it was 1980 before the SOED published a development programme (SOED, 1980). A consultative paper on implementation ("Framework for Decision" 1982) followed before the Standard Grade curriculum development programme finally got underway in the mid 1980s, a decade after the two committees had been constituted. Implementation was phased in, with new syllabus arrangements being piloted before finalisation. SOED specified the subjects for Standard Grade and the timetable of implementation. The work of developing the examination "arrangements" was jointly undertaken by the SCCC and SEB. At subject level this was achieved through Joint Working Parties which drew on the expertise of teachers from all over Scotland. This built-in collaboration produced a kind of creative tension. A copy of all draft arrangements was sent to all schools and bodies with an interest in education for perusal and comment before final arrangements were disseminated.

This particular partnership of those bodies with a national responsibility for curricular review and examinations respectively, and the consultative nature of the Standard Grade development could

be judged as strengths of the Scottish system. However, the protracted nature of the development, and the workload associated with the size and complexity of the reform of both curriculum and examinations undermined the partnership which had been built up over the years with the teaching profession. This proved to be too much for teachers, and discontent festered into non-cooperation. The result was a set of proposals for simplification of Standard Grade (SOED 1986). (These proposals were the work of a Review Group representative of the SEB, the SCCC, the SOED, teacher training colleges and the local authorities.)

The main Standard Grade programme is now fully implemented, and the phasing-out of Ordinary Grade will be completed in 1994. In retrospect, the phased approach to implementation may not have been helpful to schools in the long-term. Paradoxically, an examination brought in with the intention of giving more freedom to the teacher in curricular matters, ended up by having a constraining effect (see below).

In 1988 The Scottish Consultative Council on the Curriculum (SCCC) replaced the CCC. It is by constitution, a more independent body than its predecessor, but paradoxically, more part of the central machinery for curriculum development. It remains the principal advisory body to the Secretary of State for Scotland on all matters relating to the curriculum for pupils from age 3 to age 18. In addition, its role into keep the curriculum under review in Scotland, to carry out SOED curriculum development initiatives, to consult a range of interested groups in education, and to issue guidance to local authorities and schools through the publication of reports. In relation to schools it is also responsible for the publication and dissemination of materials for teaching and for staff-development. The principles and curriculum structure outlined in its 1989 report ("Curriculum Design for the Secondary Stages"), although not mandatory, now underlie the curriculum of most secondary schools.

Control over the examined curriculum in any subject in S5 and S6 has largely been through SEB syllabuses for Higher Grade - which remains the main arbiter of university entrance - and the Certificate of Sixth Year Studies (CSYS). Revisions of these examinations to provide necessary articulation with Standard Grade have also conformed to the cooperative and consensual mode of curriculum development. They have been joint undertakings by the SCCC and the SEB, under the auspices of the SOED, and have provided opportunities for the teaching profession to comment on draft arrangements.

This stage of schooling (ie S5 and S6) is the current area of curricular concern, yet again the reason being the changing nature of the cohort as more pupils opt to stay on beyond the compulsory stages of schooling. To address these concerns the SEB asked the Secretary of State (1990) to set up a committee to review this stage of examination provision. The result was the "Upper Secondary Education in Scotland: Report of the Committee to Review Curriculum and Examinations in the fifth and sixth years of Secondary Education in Scotland", commonly known as the Howie Report (1992). This report advocated differentiated pathways for pupils, a "twin-track" system with the potential to move between a largely academic and a largely vocational curriculum with courses building from current modularised National Certificate courses (ie 40 hour courses internally assessed: see later) and the holistic courses of the Higher Grade and CSYS. It suggested a group certificate, with a larger core of subjects for all candidates, but with room for options as well. To address the issue of the lack of time currently separating Standard Grade assessment in S4 and Higher Grade in S5, it suggested that Standard Grade should be completed by S3.

since publication, national newspapers have contained numerous articles and letters supporting, or more usually criticising, the Howie proposals. The 329 written responses to the report which not only

*"praise Howie's analysis and largely damn his proposed solution to the problem..."* (The Herald, 28.4.93)

also make suggestions to rectify what they see as the short-comings of the proposals. The consensus appears to be, that while the aims of the report are laudable (for example the incline of difficulty to Higher is too steep for many pupils and needs to be reduced), the analysis of the current situation is apt to describe statistics of performance in too negative a way, and that the proposed solutions are out of proportion to the size of the problem. The proposals for a twin track system appear to be particularly unpopular, as is the idea that Standard Grade could be completed a year earlier in S3. All the main players in the field. the SCCC, the GTCS. and the SEB have responded to the consultation process in much the same vein. The SCCC. the government's main adviser on matters curricular, concluded in its response (1993) that the report

*'fails to make a convincing case for the radical overhaul which it proposes' (p 3).*

The government has delayed making a pronouncement: this delay is partly due to acknowledged discontent within the teaching profession about workload. Memories of Standard Grade implementation remain, and there is perhaps a feeling among teachers that they have become little more than operatives carrying out policies over which they have little control (Philip. *op cit.* p 225). This view is not wholly borne out by the survey data gathered for this investigation. Respondents were asked the extent to which they considered control had moved away from the teacher during the past decade at the various stages of secondary schooling: their responses are summarised in the table below.

% respondents who considered that control over curriculum content has moved away from the teacher:

	at S1 and S2	at S3 and S4	at S5 and S6
very considerable	8 %	27 %	22 %
quite considerably	31%	45 %	41 %
a little	50%	21%	28%
not at all	12 %	7 %	9 %

The Standard Grade years (S3 and S4) were judged to be the ones in which most control had moved towards the centre, and S19 S2 the stage where most autonomy over curriculum content remained. Those who responded "very considerably" or "quite considerably" were further asked to state whether they considered this change to be beneficial or not. Standard Grade (ie S3 and S4) fared well with 73% considering this to be at least of "some beneficial effect" (18% as "very beneficial"), 18% judged the effect "somewhat harmful" and no one judged it "very harmful". In general the shift to less autonomy over what is taught was viewed positively at all stages.

A similar picture across the three stages emerged when asked these questions in relation to hoe the curriculum is taught, ie teaching methods. The Standard Grade years however were even more distincti-ve for their perceptions of diminished teacher autonomy as shown below.

% respondents who considered that control over **how the curriculum is taught** has moved away from the teacher:

	at S1 and S2	at S3 and S4	at S5 and S6
very considerably	14%	30%	15%
quite considerably	24 %	42 %	37 %
a little	54%	23%	40%
not at all	8%	4%	8%



Again Standard Grade fared best in relation to how these changes were judged. 77% of those who responded "very considerably" or "quite considerably" went on to judge the shift to the centre as at least having "some beneficial effect" (22% "very beneficial"), 18% considered the change to be "somewhat harmful" and 2% chose the option "very harmful".

Respondents therefore perceived a move towards the centre both in relation to curriculum content and teaching method at all stages, but most particularly at the stage of Standard Grade. They tended to view this change as "of some beneficial effect". Of those who responded "very considerably" or "quite considerably" 70% judged that these changes were partly curriculum and partly assessment-driven. This suggests that those involved in delivering the curriculum in Scotland perceive the method of curricular development to be a joint venture between bodies with responsibility for curriculum and for examinations.

Nothing in the examination system remains static, even without counting on the changes likely to ensue from the Howie proposals. While the SOED has been the instigator of the major curriculum reforms of recent years, it does work within a broadly consultative framework as do the SEB and SCCC. This framework allows for views to be heard, not just on major reforms, but on a day-to-day basis on current and proposed syllabuses. The content of the Standard Grade History Arrangements has been the source of a heated debate in the national press during 1993 (are pupils studying enough Scottish History?), and this sort of public debate is welcomed by the SEB. Pressure for curricular change can also come from good practice in schools. Media Studies, so long spurned in the Higher Grade English Arrangements, is now finding its way into this examination. The place of minority mother-tongue languages represents another area where the SEB would wish to react positively to initiatives from schools (SEB Examinations Committee, Minutes of the 75th meeting, 7.10.93). A request to the Minister from the SEB for examinations in Urdu was turned down in 1988; nevertheless a second request is being pursued. While attempting to fulfil its statutory duties the SEB has occasionally developed a syllabus for which there was no official backing: Higher Grade Geology is such an example. On the other hand there have been quite a few occasions when the government has taken a decision contrary to the advice of the Board (Philip, *op cit.* p 225).

### **Vocational education**

To this curricular policy-making and implementation structure has to be added another player, The Scottish Vocational Education Council (SCOTVEC). This body was established in 1985 to take responsibility for vocational qualifications. An SOED report "16-18's in Scotland: An Action Plan" (1983) introduced a modularised structure for vocational qualifications and this was brought quickly to implementation with minimal consultation and piloting. Teachers were however at the heart of the development through a programme of secondment. At the outset these internally-assessed modular courses (National Certificate) were only available in colleges of further education, but increasingly they have been taken up by pupils in S3 upwards in secondary schools.

Schools are now encouraged to offer groups of related modules to produce a coherent award (General Scottish Vocational Qualifications or General SVQs); one which is not narrowly targeted at a particular occupation. This development has been viewed as a useful curriculum planning device for S5 and S6 pupils, one which provides a less complex solution than the Howie proposals (TES 1.10.93).

SCOTVEC's vocational qualifications are directly related to the world of work, and consequently it is an industry-led organisation. However it also links into the existing structure through the SCCC and the SOED.

### Primary stage and first two years of secondary schooling

The curriculum of the primary school has also been an arena in which schools, local authorities, the SCCC and the SOED have each had a role to play in policy-making. Primary schools retained their curricular autonomy much longer than their counterparts in secondary schools.

The SOED produced a seminal report on the primary curriculum in 1965. This report, "Primary Education in Scotland", (SOED, 1965) was the work of an *ad hoc* committee on Primary Education whose existence pre-dated the setting-up of the SCCC. Morris- (1990, p 23) describes this report, commonly known as the Primary Memorandum, as

*"the first official document produced by a committee which had a majority of its members drawn from schools and (teacher-training) colleges rather than wholly from the Civil Service lie Inspectors or SED personnel)".*

The first sentence of the Primary Memorandum set the tone.

*"It is now generally accepted that the primary school is much more than a preparation for the secondary school: it is a stage of development in its own right."*

It paved the way for a more child-centred approach to the primary curriculum, with learning "through" topics or themes rather than learning "in" subjects.

This balance of curriculum control and development lasted for 25 years. Given the advisory nature of central policy on the curriculum at that time, the process of dissemination of good practice was necessarily a slower and less complete process than under the more recent, more centrally-controlled curriculum development mechanism. (However when enough time has elapsed to judge the lasting changes each has spawned, it may be that its overall effect was no less profound.)

In relation to the 5-14 age-group, a range of consultative documents giving guidelines across all areas of the curriculum was produced following the SOED Paper *Curriculum and Assessment in Scotland: A Policy for the 90s* (SOED 1987). These documents were produced by SOED-initiated central committees in the period 1990-1993. Some engendered more debate than others: the environmental studies document, for example, was revised considerably in the light of consultation.

These documents map out national guidelines in the form of curricular balance, and, within each mode, attainment targets which pupils should be able to overtake as they progress through primary and the first two years of secondary schooling. The attainment targets are arranged in the form of Levels, with Level A at a very minimal standard of attainment and Level E at a standard which could challenge the most able in P7 and the majority of S1 and S2. While ages and stages are suggested for each of the Levels, it is recognised that pupils will not necessarily move through the Levels at the same pace.

Individual primary schools therefore no longer have the curricular freedoms of the 60s, 70s and 80s. In theory these curricular documents are merely guidelines, but the local authorities have all endorsed them and would expect their teachers to do likewise. Again one of the strengths of this curriculum development has been its consultative nature during the development phase.

The progress of the curricular development of the 5-14 initiative is in marked contrast to the progress of the plans for assessment of this age-group. Primary schools had been free of formal assessment since secondary schools had been reorganised on comprehensive lines in the mid

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<sup>2</sup> For a fuller discussion and a comparison with almost parallel developments in England, see Blyth's analysis (1990, p 15)).

assessment since secondary schools had been reorganised on comprehensive lines in the mid 1970s. The 5-14 programme introduced the idea of compulsory testing of all P4 and P7 pupils, in language and mathematics, at a Level appropriate to the individual pupil. The majority of teachers - and the teaching unions - were against the idea from the start. Their resistance, and that of the local authorities, to compulsory testing at a fixed period led to regulations being brought in by the government.

Many parents then allied themselves with teachers and withdrew their children from the testing. The government withdrew the regulations, and introduced a more flexible structure whereby teachers can decide when a child has mastered a particular Level, and can then test the pupil to confirm that that is indeed the case. Testing had been introduced without the careful consultation which typifies curricular and examination change in Scotland. Although few were against the idea of introducing some quality control in the form of tests, and many indeed praised the quality and nature of the tests, the lack of consultation and the degree of compulsion riled. Articles about the furore frequently made the front page of the national press. On the whole, Scottish parents backed their teachers. Parents as consumers had backfired!

The 5-14 curricular guidelines also impinge on the secondary school curriculum. Formerly S1-S2 was a stage of orientation, following a "fresh start" approach as pupils arrived from a range of feeder primaries each having a different curriculum. It was seen as a time to "taste" new subjects and consider curricular choices. The "Education 10-14 in Scotland" Report, a report from the SCCC (1986) which recommended a more holistic approach to education at this stage of transfer from primary to secondary, was sidelined by the SOED because of the cost implications of implementation. This report was eventually overtaken by the 5-14 plans.

While there has been concern at the lack of autonomy left to the individual teacher - partly because these curricular changes occurred at a time when the professionalism of teachers was seen to be under threat from a range of policy changes - there has also been an acceptance of the need for a broadly-agreed set of attainment targets for this age-group. Teachers were also aware, from the furore of the Standard Grade implementation in the 1980s, that the price of autonomy in terms of workload was high, and given the "size" of the curriculum development (ie total curriculum reform), the workload associated with a less prescriptive set of arrangements would be intolerable. These curricular guidelines now form the basis of the curriculum at the primary and lower secondary stages of schooling.

### **The future**

Overall, the creative tension inherent in the relationship between the various bodies with responsibility for curriculum and examinations works well. There is a body of opinion within the educational community which sees advantages in a merger between SCOTVEC and the SEB, and the local authorities have expressed interest in the inclusion of the SCCC in such a merger (TES 1.1.93). Currently it could be argued that there exists a healthy balance between the various bodies with responsibility for the curriculum and examinations in Scotland, and that power-sharing is appropriate to the consensus-seeking traditions of Scottish education.

At all stages of schooling, curricular control and curriculum development are now on a much less advisory footing. There is now no stage at which the curriculum is as free as it was in the early 1980's. During the 1980s and early 1990s control over curricular matters steadily moved away from schools and local authorities towards the centre; central direction however is largely in the form of guidelines rather than prescriptive curricula.

The curriculum at every stage is in a state of change. Referring to all these changes, the leader of the local authorities recently wrote that this has meant

*"an ever-increasing workload as teachers strive to deliver what has become an ever more complex mix of course choices within, paradoxically, an even more constrained curriculum"*  
(The Scotsman, 19.5.93)<sup>3</sup>

### **The curriculum and examination system in 1993**

#### **Primary stage**

The Primary school curriculum today represents a combination of the major curriculum developments since the 1960s. On the one hand it is now shaped by the 5-14 guidelines, with their attention to attainment targets and learning **within** subject areas, and the earlier pupil-centred approach with its emphasis on learning **through** integrated topics. For each area of the curriculum a proportion of class time is allotted (for example 15% for learning in the Expressive Arts). This core takes up 80% of time available, leaving a flexibility factor of 20%. Pi is largely a bridge between nursery-education and formal schooling; much of the learning is play-based. In P2 and P3 learning tends to be through themes or topics, and the pupils generally work in groups, with a minimum of whole class teaching. Language (reading, writing and talking) and number work, environmental studies, craft and technology, music, drama, physical education, religious and moral and health education are all included. As the pupils progress to upper primary, the emphasis is on consolidation of basic skills and extending not just knowledge but problem solving skills and creativity. While generally more structured than the early years, the main emphasis still rests on a thematic rather than a subject-based approach. Pupils continue to work in groups although some class teaching is also used. There is currently a policy to introduce a modern language other than English into the primary school curriculum. There are learning support teachers to help individual slow learners.

Testing takes place when a teacher considers a particular child is moving from one Level to the next. Schools are sent a catalogue of nationally-calibrated tests by the 5 - 14 Assessment Unit (the FFAU, an SOED-funded agency, run by the SEB), and teachers can choose a range of tests to suit the themes their pupils are studying. The tests are marked by the teachers according to national guidelines, and a sample of this marking is checked by the FFAU. The grouped results must be reported to the school board. The FFAU monitors a sample of test results: this information informs future test construction.

#### **Secondary stage**

The curriculum in Scottish secondary schools today is largely shaped by a guidance document produced in 1989 by the SCCC, and revised after consultation in 1991. This booklet, "Curriculum Design for the Secondary Stages" brings together the curriculum thinking of more than a decade, and lists as its sources 26 different reports, curriculum papers and guidelines starting with the Munn Report - emanating from the SOED, the Inspectorate, local education authorities and the SCCC itself. Its overall priority is to ensure a curriculum for pupils which has coherence, continuity, articulation and progression (p 3).

The 8 curricular modes recognised in the Munn Report, and described as "categories of activity and study", underpin the curriculum of all secondary pupils. These are language and communication, mathematical studies and applications, scientific studies and applications, social and environmental studies, technological activities and applications, creative and aesthetic activities, physical education and religious and moral education. It provides guidelines about

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<sup>3</sup> For a fuller review of national testing see Kimber P(1993) in the *British Journal of Curriculum and Assessment*, and for an analysis of this period of policy-making see Hartley and Roger (1990).

minimum time allowances for each mode and, at each stage, the particular subjects which contribute to each mode. Although these are broad guidelines, they are widely adopted and ensure a measure of consistency of provision across the country. Again there is reference to one of the main aspects of curricular or examination change in Scotland (p 3)

*"The national curricular framework which has emerged in Scotland is based on widespread consultation. "*

The S1 and S2 guidelines are dovetailed with the 5-14 programme. Beyond this the guidelines are built on the certificate courses available. For S3 and S4, Standard Grade and Short Courses are certificate by SEB and National Certificate (NC) modules by SCOTVEC. While these are all available to pupils in S5 and S6, the main choices for these pupils are Higher Grade, Certificate of Sixth Year Studies (CSYS), National Certificate modules and SEB Short Courses. Thus a pupil in S4 might have a course of up to 8 Standard Grades, or perhaps a mix of Standard Grades, NC modules and Short Courses covering the 8 modes. 92% of the age cohort are now presented for Standard (or Ordinary) Grade certification in at least 6 subjects and 52% of the cohort gain 4 or more awards at grade 3 or better (Scottish Examination Board: Report for 1992)

Standard Grade is a criterion-referenced examination. Each subject is divided into elements (eg in English the elements are Reading, Writing and Talking) and certification is at the level of element as well as overall subject award. Most subjects have three elements, one of which is teacher-assessed. Frequently this takes the form of an investigation or a practical activity for which teacher assessment is more valid. Examination papers generally require short, candidate-constructed responses, which depend on detailed marking schemes. Teachers provide internal estimates of performance on the external papers, and these estimates help inform decisions on standards. Generally candidates sit examination papers at two adjacent levels in any subject. This degree of "over-examining" is felt to be necessary in a criterion-referenced system.

In S5, a pupil working towards university would generally take 5 subjects at Higher Grade, perhaps some NC modules and Short Courses. The Higher Grade examination is also subject-based, but more dependent on external examining than is Standard Grade. There are a few objective test papers, but most require candidate-constructed responses, frequently in essay form. NC modules and SEB Short Courses are both based on 40 hour courses. They are criterion-referenced, each based on a small number of learning outcomes. Assessment is internal, with both bodies operating a system of control of standards. The SEB version involves external moderation: if the school assessments are judged acceptable, the school is accredited to assess that particular course for a further year. SCOTVEC operates a system of devolved quality control, with the schools given more responsibility for standards.

At the S5, S6 stage, curriculum specialism is greater and consequently for any pupil, not all modes would necessarily be represented by an examined subject. Sixth year is becoming less homogeneous as more pupils stay on, and take a wider range of combinations of certificates. Weir and Kydd (1991, p 14) judge that such a mixed curriculum (ie academic and vocational) is easier to deliver in the USA where schools do not have to satisfy external examining bodies at the stage of high school graduation. However, as the next chapter argues, pupils are exposed to more testing in the USA than in Scotland.

Almost all pupils who stay on for a sixth year are presented for at least one Higher Grade: 78% of those staying on gain a pass in one or more Higher Grades. Approximately 10% of the age cohort are presented for 1 or more subjects at CSYS (Scottish Examination Board: Report for

1992). The CSYS is designed as a self-directed form of study, both academic and enquiry-based. Assessment is wholly external, but coursework - in the form of, for example, a folio or an investigation - is a major part of the overall assessment <sup>4</sup>

### EFFECT OF EXAMINATION SYSTEMS ON CURRICULUM DEVELOPMENT

The curriculum in Scotland at the secondary stage has always been strongly affected by the examination system. There has been a tendency for curricular guidelines at this stage to build on existing examinations. At the primary stage, this type of relationship between curriculum and examination has been resisted ever since the demise of selection procedures for secondary schools prior to the introduction of comprehensive education. The primary curriculum has been seen as something quite independent of national tests, however closely the tests might be aligned to the curriculum. There can be little doubt that, had national testing of primary school children never been suggested, the 5 - 14 curriculum reform would have won teacher support on its own merits.

The relationship between curriculum and examinations at the secondary stage has meant that there has had to be a similarly close relationship between curriculum development and examinations. The question then is, how beneficial or harmful has this relationship been?

Chapter 1 listed some conditions which need to be fulfilled before the effect of examinations on curriculum development could be judged to be positive rather than negative. It could be argued that the Standard Grade development fulfilled almost all of these conditions:

The arrangements were generally endorsed as bringing into the curriculum aspects of subjects which before had been largely undervalued: aspects such as practical skills in science and mathematics, process skills - such as problem solving and investigating - in a range of subject contexts, and oral competence in languages. An article in TES (2.10.92) quoted from an inspectorate report on English teaching which stated that most teachers had responded well to the changes brought about by Standard Grade: they were providing opportunities for pupils to practise different types of talking; and their syllabuses were heavily influenced by Standard Grade practice. (That such aspects were not valued and given a reasonable time allocation in schools before being brought in "on the back of" Standard Grade is possibly a measure of the depth of the examination culture in the Scottish secondary school.)

Standard Grade also made provision for virtually the whole ability range, for the first time in the history of examinations in Scotland. For example, 97% of the total cohort take Mathematics exams, and 93% of the cohort gain an award in Mathematics; more low ability pupils than before now achieve a pass in a science subject and a modern language, and more high ability pupils now include a pass in a technological activity than before (Croxford, 1994). While part of this change has come about through the implementation of curricular guidelines, the availability of examinations across the full ability range has also played its part in this equalisation of curricular opportunity.

Standard Grade also introduced a new balance between the need for assessment reliability with that of validity by introducing a degree of internal assessment. (All but 2% of the survey respondents judged Standard Grade a valid examination, 44% choosing the option "moderate validity and 54% choosing "high validity".)

The examination and the curriculum were designed together specifically to maximise articulation, and the innovation was brought about by the SCCC and the SEB, as a joint undertaking of equal partners.

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<sup>4</sup> For more detail of the curricular choices made, see the Scottish Office Statistical Bulletin, Education Series, Feb 1992, and March 1993; Weir and Kydd (op cit 1991); Croxford, Howieson and Raffie (1991).

The Standard Grade reform programme faltered - badly, but temporarily - on the condition of workload as described above. This led to a simplification of procedures and the provision of centrally-produced curricular materials. The survey contained a question relating to the effect of the availability of such materials on quality of learning and on teacher workload. 90% considered the effect on the quality of learning to be positive (22% "very beneficial") but only half (49%) judged the effect on workload as positive. It would appear that workload remains a contentious issue in Scottish schools.

Standard Grade could also be said to have limited the freedom of teachers to make curricular and pedagogical decisions. In a paper delivered to an audience of international educationalists in 1985, the current Chief Executive of the Board wrote:

*"It is interesting... to note that a system which was intended to increase the scope and freedom of teachers to exercise their own choices when devising and designing teaching courses has...brought a much more rigorous control over what is taught than the centrally dominated system it is to replace ever had. By introducing the element of freedom on aspects of the syllabus and a more substantial role for internal assessment the "Arrangements" documents delineating the courses are much more substantial and demanding than anything ever seen in Scotland in the past. They probe, guide and require in every aspect of teaching and assessment." (Long, 1985, p9).*

Changes to the curriculum at Higher Grade and CSYS have been at the level of small-scale developments rather than wholesale curriculum reform as at Standard Grade: minimum change to allow for articulation has been the principle governing the process. Examination changes have generally fulfilled the role of clarifying curriculum changes. While these developments probably meet the conditions listed above, and in the case of validity, were endorsed by the survey respondents, the time available to get pupils to the standard of Higher Grade is so short as to constrain how the curriculum is taught: this hinders the development of, for example, problem-solving or investigative approaches. Many commentators have endorsed the analysis of this problem as described in the 1983 Inspectorate Report "Teaching and Learning in the Senior Stages of the Scottish Secondary School" and more recently, in the Howie Report (*op cit.* 1993).

In the case of Higher Grade, the close relationship of curriculum to examinations could perhaps be justified on the basis that the Highers for more than a century have provided a means whereby pupils from socially-disadvantaged circumstances have been able to compete equally with those from schools in more advantaged areas. It has also protected school-leavers from a rash of university entrance examinations, or screening/selection procedures for further training or a job. That Highers have fulfilled this allocative function is beyond doubt. But these "high stakes" have inevitably exacted a price in relation to curriculum development. Users, particularly universities have retained considerable influence over the content of Higher Grade courses: the Higher Grade has remained as "a gold standard", but as a target, it has proved to be somewhat inappropriate for many pupils of moderate ability who, since 1984, have chosen to stay on at school for a fifth, and even a sixth year, in the hope of gaining qualifications. Pressure for change therefore built up in the system, and the result was a set of proposals in the Howie Report almost as radical as those of the Munn and Dunning reports.

The main purposes of these examinations over the years have been as graduation credentials (statements of attainment) and as allocative devices: in the case of Standard Grade, results help pupils and teachers decide on an appropriate fifth year curriculum; in the case of Highers and CSYS, results are a major factor governing access to further and Higher education and indeed jobs .

However, since 1991, an entirely new purpose has been "bolted on" to these examinations by the SOED. This is an evaluative purpose. The raw examination results of candidates in each local authority and in each school are now made available - with the cooperation of the SEB - and this

information is published in the national press. Information on relative performance within a school viz a viz each subject is also provided for the inspectorate and the local authorities, who may if they wish share it with their schools.

In the survey, teachers and IBs were asked which purposes they considered ought to be met by the examinations available. Their responses have been ranked in order of frequency in the table below, separately for Standard Grade and Higher Grade.

**Views of respondents on appropriate purposes of examinations**

Purpose	Number of responses, ranked	
	Standard Grade	Higher Grade
Statement of attainment at a stage	1	1
Curricular guidance for next stage	2	2
Selection for next stage	6	3
Formative information (next learning steps)	3 =	6
Curricular control	8	9
Checking on delivered curriculum	3 =	4
Introducing new curricular content	5	5
Evaluating schools	7	7 =
Evaluating teachers	9	7 =

The "traditional" purposes of attesting attainment at a stage in schooling, providing curricular guidance, selection for the next stage and checking the delivered curriculum were considered the most appropriate purposes. Evaluation of schools and teachers was considered less appropriate.

In a more open-ended question about possible effects on school policy of the publication of examination results, 6 out of every 10 respondents considered that this would have no effect on school presentation policy but 4 out of 10 considered that it might for example encourage schools to have a stricter presentation policy.

Almost 4 out of 10 judged that it would have no effect on policy regarding internal quality control (some adding that they do that already). However 6 out of 10 considered that it would affect their quality control policy, or their awareness of the need for such a policy. Some mentioned particular examples like encouraging pupils to take a Higher over 2 years rather than attempting it in one year.

Just over 5 out of 10 thought that publication of examination results would have virtually no effect on school policy in relation to preparing pupils for examinations or teaching method. One in 10 considered there might be benefits from more careful preparation (such as initiatives on homework or study skills) while just over 3 in 10 judged that the effects will be negative in this area (narrowing of teaching methods with more pressure on pupils to pass exams, and on the individual teacher to ensure they do). The remainder were unsure of what the effect might be.

Finally respondents were asked what effect publication of results might have on curriculum content taught. 6 out of 10 considered there would be no effect, almost the entire remainder suggesting bad effects such as limiting the taught curriculum, teaching towards the examination or hindering innovation.

It is perhaps too early to tell what effect this additional and unforeseen purpose of examinations may actually have on the curriculum, or how it is taught. Speaking to a conference of the Head Teachers Association recently, the Minister with responsibility for education said



*"Schools increasingly have to look beyond their own school gates and be aware of the performance of other schools in the neighbourhood, in the education authority and, indeed, across Scotland" (TES 30. 9. 93)*

The SOED view is perhaps more focused at the level of each school: namely, how can a school's examination results help that school become more effective? Spencer and McGregor (1992) see examination indicators as just one input which can help schools become more effective.

Few would quibble with the aim, but some might criticise the overall educational agenda which draws its metaphors from the world of commerce: customer, client, provider, competition, audit, ratings, quality control and performance indicators. At a recent conference on "Measuring Schools: the Rights and Wrongs of Practice in Scotland", Brown (proceedings reported in Paterson ed, 1993) urged caution in the borrowing of concepts from another sphere of activity, and warned that the process of audit could become all-important in itself. McPherson, speaking at the same conference, Considered the implications of these changes on the teachers' professional role, as follows:

*"They could be interpreted as supporting greater transparency and systemisation in teachers' professional judgements, as an opportunity for teachers to develop themselves and their schools with the benefit of better information. Alternatively they might be regarded as a means to deskill teachers and to transfer accountability wholesale to people who lack a professional background in education. What is certain, however, is that the systematic application of performance indicators will, for good or ill, penetrate to the very heart of the educational exchanges between teacher and pupil...." (Paterson ed, op cit. p 1).*

A Forum on Scottish Education held recently which represented a wide range of educational bodies in Scotland (9 teacher and lecturer organisations, 7 parent groups, students, local authorities and the main churches), dismissed raw examination information as saying more about the socio-economic status of the catchment area of a school than about the quality of teaching and learning (The Herald 12.2.93).

A similar anxiety exists in England and Wales. When raw league tables of school examination results were published for 1992, the chair of the Society of Education Officers in Wales considered this

*"a perverse adherence to a single measure of quality" (TES 18.12.92).*

The survey attempted to find out views about a range of possible effects of examinations and their relative saliency in Scotland. For each question, respondents were asked to decide between "very much", "a considerable amount", "a small amount" and "not at all". Two negative effects of the Scottish examination system were reported: 90% of respondents judged that the examinations control curricular content (47% "very much"), and almost two-thirds considered that they encourage the use of practice tests (33 % "very much").

The remaining effects of examinations reported were of a more positive nature: they were not considered to cover more than the curriculum taught in schools (44% "small amount", 38% "not at all"); they were judged to clarify the curriculum and standard expected (25 % "very much" and 43% "considerable amount"); they were not generally considered to lead to greater value being placed on theoretical rather than on practical knowledge (41% "small amount", 19% "not at all") or on memorisation of facts rather than on understanding (49% "small amount", 22% "not at all"). In terms of under-pinning curricular guidance they were endorsed as useful (17% "very

much", 44% "considerable amount") and neither were they considered damaging to the pupil-teacher relationship (29% a "small amount", 63% "not at all"). Respondents were particularly asked about the relationship of examinations to curriculum innovation. Responses were also positive in this area: two-thirds considered that examinations did not hinder curricular content innovations, and 70% that they did not hinder innovations in teaching methods. They were also seen partly as agents of bringing new subjects into the curriculum (62%).

The typical perception therefore appears to be of examinations well-matched to the curriculum; controlling it, but not to the extent of emphasising theoretical rather than practical knowledge or indeed memorisation of facts over understanding. There was an ambivalence about practice tests. Pupil-teacher relationships on the whole were judged not to be harmed by examinations. and the effect on standards was perceived as helping to raise them somewhat. Exams were judged fairly useful for curricular guidance. In relation to curricular innovation, they were viewed in a relatively positive light. When asked to evaluate, more holistically, the effect of examinations on the curriculum - and thus on curriculum development - the following views were expressed:

Overall effect on curriculum	Examination			
	Standard Grade	NC modules and Short Courses	Higher Grade	CSYS
very beneficial	43%	37%	30%	26%
of some benefit	46%	47%	50%	48%
little effect	5%	10%	10%	22%
a little harmful	6%	5%	8%	2%
very harmful	0%	1%	2%	2%
	100%	100%	100%	100%

As the table shows Standard Grade overall received the most positive endorsement of the various examinations on offer. In each case the percentage of respondents judging the effect on the curriculum to be harmful was never more than 10% .

### Conclusions

At the primary stage there has been a widespread rejection of a direct link between curriculum reform and national testing: not even government regulations would persuade parents or teachers of the rightness of such a relationship.

At the secondary stage in Scotland curriculum development is intimately tied up in the national examination system. Standard Grade in particular has positively encouraged new subjects, new skills and new teaching approaches. Higher Grade, on the other hand, has to an extent stifled innovations in teaching method, given the lack of time available to cover the syllabus content.

Secondary teachers seem to be reasonably approving of this relationship between curriculum development and examinations, as long as their workload is not over-stretched. This acceptance is most probably due partly to the fact that the various bodies responsible for examinations and curriculum work together in a collegiate manner, and generally favour a consensual style; it is also possibly due to the fact that a considerable number of teachers are directly involved in the various processes involved in the development of curricular materials, in internal assessment for certification and in examination procedures and standard-setting.

## CHAPTER 7 UNITED STATES OF AMERICA

### BACKGROUND

The United States is by far the largest of the seven countries chosen for this study. With a population of 258 million, a quarter of whom are under 16 years of age, its population is double that of Japan, the next biggest in population terms, and 50 times the population of the smallest country, Scotland. Its average population density (28 per square kilometre) is one of the lowest of the 7 countries, and the population unevenly spread with 75 % concentrated in urban areas. Its population is growing at 1% per year, faster than the other developed countries in the sample, but considerably slower than in the three developing countries. Part of this population growth is attributable to immigration. For example, the New York City school board caters for 140 000 pupils (students being the US term) with limited English proficiency. This represents 14% of its students. The major demographic features are summarised in table la.

While Americans might consider their current economic climate somewhat dominated by recession and budget deficits, in relation to the other six countries per capita GNP is high, with only Japan in a similarly favourable position. Distribution of household income is a little less equitable than in the other three developed economies, with the lowest 40% of households earning 16% of the total income (UNICEF, 1993). Poverty is on the increase with one in five children now reported as "living in poverty", with the figure rising to one in three in the worst city slums (TES, 20. 11.92). The effect on schools and on teachers in such disadvantaged areas, in terms of the lack of social cohesion and attendant problems of drug abuse, violence, and dropout rates can be considerable. While this type of relative poverty may be quite different in nature and effect from poverty as measured in economically less advantaged countries, and less widespread, nevertheless it cannot be ignored.

Nationally, 5.3% of GNP is spent on education, but this average figure conceals considerable differences nationwide. The gap between the money available to rich suburban schools and to those in inner cities - where the need for special education programmes is arguably greatest - has widened. This variation has arisen from the devolved nature of the administration of American education and the tradition of funding schools mainly from local property taxes. Norris reports on the situation in the state of Texas, where court battles over school funding have been fought; students in the richest school districts are reported as having almost \$12 000 spent on their education per year, while the equivalent spending per pupil in the poorest school districts is a little over \$3 000 (TES 26.2.93). Coffman (1993), who specialises in achievement testing and evaluation of educational programmes, contends that one of the underlying problems of American education is

*"the vast differences in how resources, both financial and cultural, are distributed among school districts"*

The general aims of American education have however been avowedly meritocratic for longer than in most countries. Education has developed in line with a federal constitution, and thus it is the individual states rather than the federal government which retain decision-making power.

Education is high on the political agenda. The seminal report of the National Commission on Excellence in Education, "A Nation at Risk" (1983) raised public concern about educational standards. Bondi (1991) traces similar symptoms of public disenchantment with education at this time in the US as in the UK. She describes the causes as reduced enrolments after years of expansion, public expenditure cuts due to recession and the realisation that education was unable

to solve all social and economic ills. Bondi also notes the convergence in remedies which became the policies of the administrations of the 1980's and 1990's. The Bush administration's remedy, as mapped out in 1991 in "America 2000: Education Strategy" was to inject competition and accountability into the system: Bondi (*op cit*) describes the policies which encouraged competition and which viewed parents as consumers (differentiation between schools, encouraging state-wide "magnet schools", relaxing catchment-area restrictions, devolved school management). Vouchers for parents to exercise choice in their child's schooling are still a possibility in California. Another area in which competitiveness was engendered was in the publication of test results and school performance indicators. The introduction of national testing at the end of grades 4, 8 and 12 was also mooted. The Clinton administration has kept education, and national standards in particular, high on the political agenda. Current educational debate concerns whether or not to have national tests or benchmarks, who should exercise control over standards, and, perhaps more locally, the question of financial equity between schools.

### GENERAL FEATURES OF THE ADMINISTRATIVE STRUCTURE OF EDUCATION

While the topic of control of curriculum, curriculum development and assessment in particular will be addressed separately, the general features of the educational administrative structure are described below.

In the US, legislative responsibility and authority for schooling rests with the 50 states (and the District of Columbia) rather than with the federal government. The latter can monitor and suggest, but it cannot, as yet, direct, except for special programmes which it funds. There is no national body for controlling the curriculum or curriculum development, for accrediting educational establishments, for setting and checking standards (although the National Assessment of Educational Progress (NAEP) monitors standards by testing samples of students), no national examination and no national body controlling the entry of recruits to the teaching profession. The scope for legislative diversity between the 50 states is therefore considerable.

Below state level, education is implemented, and to an extent controlled, by 15 000 local school districts. School districts are generally fairly small, but range in size from 10 000 to 2 million students. The variety between them is considerable. Bondi (*op cit*, p 132) asserts that such local freedoms are valued:

*"defence of the latter being nearly universal"*

In particular the school districts generally have control over curricular issues (although this varies), and responsibility for staffing and resources. However, since the major debate about standards started in the mid 1980's the trend has been for the states to assume stronger powers. In New York State, for example, it is the state rather than the individual school districts, which determines the curriculum.

The unassailable position of the state, rather than the federal, administration in curriculum and assessment was tested in the context of the desire of President Bush to introduce national examinations. The House of Representatives vetoed the bill. The (federal) Department of Education was only allowed to develop subject-related standards, not a national testing system.

At school level control extends to how a curricular programme is implemented.

## **BASIC FEATURES OF THE EDUCATIONAL SYSTEM: AGES, STAGES, TYPES OF SCHOOL, CLASS SIZE AND PARTICIPATION RATES**

While some variations exist between states, the overall picture is of students attending school on a compulsory basis from age 6 to age 16, and of a high staying-on rate beyond that stage. Only in one state can students leave at age 14. In 8 states the minimum leaving age is 17, while in a further 10 states it is 18 (Department of Education statistics for 1989).

Most states organise their schooling on a 6+3+3 year system (the three components being elementary, junior high and senior high school). Within the senior high schools there are academic, vocational and general courses. However some states have an 6+2+4 year or grade pattern of schooling, and some have separate vocational high schools. Students graduate from high school: to gain their high school diploma they generally have to complete 14-16 credits with an average of at least a grade D, (A being highest and E being lowest). This target is pitched at a level such that students of even modest ability, with diligence and a good attendance record should be able to graduate.

Participation rates in education are generally high (see table 1b), but once again an average figure can mask quite big differences between groups. The drop-out rate among Hispanics is reported as remaining

*"stubbornly high at 35.3%, and although the figure for blacks has declined slightly to 16.3 % it is still double the percentage for white students. " (TES 28.5 .93)*

Average class size at elementary level is 25, and 24 at high school level. Pupil-teacher ratios are however considerably lower in the secondary sector than in the elementary sector, given greater subject specialisation and management structures in secondary schools (see table 1c). Data on pupil-teacher ratios for 1992-1993 from the largest teaching union, the National Education Association (NEA), suggest that quite wide variation also occurs between states: at the elementary stage pupil-teacher ratios vary from a low of 13.9 on average in the District of Columbia to a high of 29.8 in Utah; in the high school sector the corresponding extremes are 7.3 in Massachusetts and 23.8 in New Mexico.

Openness of access is also a distinguishing feature of the American system. Staying-on rates (ie beyond the stage of compulsory schooling) are high (90%) compared to other countries in this investigation (US Department of Education statistics). Even among 18 and 19 year olds many are still in the school system. In 1991, 44% were at college stage, and a further 15% were still enrolled below college stage (NEA statistics).

The private sector is relatively small but expanding. (Department of Education statistics give the proportion at both elementary and high school stage as 11%). To be accredited, private schools must generally follow state curricular guidelines and students would be required to sit state-mandated tests. However, there is discretion in terms of decisions on how passes are decided.

## **THE CURRICULUM**

*A questionnaire was sent to 55 educationists, with a view to corroborating information from published sources. Given the small size of the sample and the diverse perspectives of respondents it was not expected that conclusions could be drawn from the data. However, the responses were useful in that they provided a flavour of the range of opinions on matters relating to curriculum and examinations. Interviews were held with the College Board and New York City School Board.*

## Control of the Curriculum and Curriculum Development

The individual states have authority over curricular decisions, but much of this control is devolved to school districts. Generally each state provides curricular guidelines (for example, minimum course requirements for graduation and course coverage) while actual content at the level of subject is controlled by school districts. However many configurations prevail: the state of California for example controls the school curriculum through fairly specific curricular frameworks; Utah, on the other hand requires schools or school districts to submit curriculum frameworks for accreditation. New York state, through its curriculum and assessment councils, is currently setting guidelines for a new curricular framework. (These councils, one per subject, draw on expertise from the local school districts and representatives from a range of interests, including schools, school administration, higher education and business.) This development could be described as "top-down" (state) support for "bottom-up" curricular-driven reform. Irrespective of the potential for variety, the trend, as judged by the US Department of Education, is towards greater control of the curriculum at state level. While it is the case that decisions made at higher levels on curriculum materials are binding on lower levels, school districts and individual schools retain considerable freedom in relation to implementation decisions.

The individual states can also exercise control over two further factors which act as a regulatory mechanism in curricular decisions, namely textbook selection and testing. States provide textbook specifications to (privately-owned) textbook companies, and statewide textbook adoption procedures are common, but not universal. Of the examples quoted above, both California and Utah have a textbook adoption procedure, while New York state, with its somewhat looser curricular guidelines, allows more freedom in relation to textbooks at district and school level. One of the effects of such an arrangement is that the most populous states such as California or Texas, with their large market share, have a disproportionately large influence on textbook design specifications. To sell textbooks in populous states, textbook companies must meet the relevant state requirements. A policy analyst with the NEA stated, somewhat paradoxically,

*"People say there is a national curriculum even though there are 15000 school districts making their own decisions"* (quoted in TES 16.4.93).

To an extent it is the case that a *de facto* national curriculum exists, especially in the more objective parts of the curriculum such as mathematics and science. There tends to be more variation nationwide in the social subjects curricula.

When asked for his association's considered opinion on the matter of textbook adoption procedures (ie the extent to which they are advisory or mandatory) the response was that while teachers may supplement these texts, they cannot replace or ignore them. NEA Resolutions take the position that to the extent possible, curricular decisions should be made at the school district level with teacher participation in their formulation (NEA Handbook 1992-1993, Resolutions E3, E4, E8).

In addition to textbooks, tests also play a substantial, if indirect role in making curricular targets less heterogeneous than might otherwise be possible. Indeed some textbook publishers also provide commercial tests. The sections of this report which follow attempt to describe the nature and extent of testing and the influence of tests on the curriculum and on curriculum development in particular.

A smaller, but growing influence on the curriculum is the availability and use of teaching materials sponsored by large corporations. In its research the Consumers' Union, an independent group, showed that

*"around 20 million elementary and secondary school students in the US are non using corporate-sponsored teaching materials every year.....Unlike conventional textbooks, which have to pass strict scrutiny by states and school districts, the free teaching kits are usually sent directly to schools or to individual teachers. Some win high praise for their educational quality....others are more questionable" (TES 21.5.93).*

In theory therefore curricula could be considerably varied, but in practice vast differences do not exist.

For a time the idea of having a national examination to underpin national standards was mooted. However there would appear to be congressional unease about such a move. It has been viewed as a national curriculum by the back door, and a creeping infringement on the long-cherished tradition of local curricular control. Under the provisions of President Clinton's Education Reform Bill (Goals 2000: Educate America Act), a National Education Standards and Improvement Council could certify or accredit state curricular content specifications and performance level requirements. It could also suggest standards of educational delivery, such as class size, resources and teacher qualifications. These would, however, be voluntary national standards so as not to infringe the liberty of each state to arrange educational provision for its students. This would seem to represent a sharing of responsibility for the curriculum and for standards between the states and the federal government; a compromise between a nationally prescribed curriculum and total state control of the curriculum. This reform is currently making progress through Congress.

Not everyone finds this an acceptable compromise: Loveless writes

*"Notwithstanding their voluntary nature, the delivery standards smack of federal mandate without crucial federal funding" (Education Week, 6.10.93, p 40)*

He views the development as "trickle-down reform", with the responsibility for improvement being passed "down the line" to the class teacher, yet with little room for the class teacher to engage in the debate.

## **THE EXAMINATION SYSTEM**

While there is no over-arching, national body responsible for examinations in the USA, there exists what might be loosely described as an examination system. Policy decisions regarding testing are in most cases made at state level, and can thus vary considerably. Students and individual schools, however, have little or no control over the subjects in which a student will be tested. The assessment system has grown out of the devolved nature of educational administration, which tends towards

*"a general, local, and non-specific approach to assessment. In the absence of any national standards, curricula and examinations, each teacher, school, district and state gave its own tests based on its own standards. American assessment practices closely resemble the democratic, Vocalist, and particularise scenario " (The College Board, 1992, p 16).*

One of the largest components in this examination system. affecting virtually all students, is achievement testing. The majority of tests administered for this purpose are commercially produced, subject-based, multiple-choice in format and test knowledge and understanding. Their initial purpose was mainly to grade students, or to monitor their progress and allocate them to particular instructional programmes. (However, the results of such testing are now averaged for each state, on an annual basis and published as a "Report Card for the Nation" by the US Secretary for Education, thus adding accountability to the purposes and considerably "raising the stakes" of such testing.)

In an overview of statewide achievement testing, Marks (1989) lists the tests used by the 50 states during 1987-1988. At that time 45 states and the District of Columbia had statewide programmes for collecting data on student achievement. Of these, 25 used nationally-normed tests such as the California Achievement Tests, Comprehensive Tests of Basic Skills, Stanford Achievement Test or the Iowa Tests of Basic Skills. In other cases state or locally-developed tests were used, sometimes criterion-referenced, sometimes adaptations of commercially-produced tests. Marks comments (p 42) that even when schools were not required by the state to use a standardised test, most school districts used them. Only Vermont and Wyoming at that time were listed as having no statewide programme.

Such standardised testing has for decades been a major component of the US examination system. However Nolen, Haladyna and Haas (1992) argue that the importance given to such test scores has greatly increased. They report that some form of standardised achievement testing is now mandatory in 42 of the 50 states. Madaus (1992) reports a phenomenal increase in test use over the last two decades, particularly for the purpose of making "high-stakes" classifications and decisions about future courses. As a minimum, most states administer standardised tests in reading and mathematics at least three times in a pupil's school career (Statistical Agency of US Department of Education).

Bauer (1992) reported on a survey of testing issues and practices undertaken by the National Association of Test Directors (NATD) in 1988-89. Information from 49 school districts from 37 states and the District of Columbia was collated, with a slight bias toward the larger school districts in terms of respondents. 58% of the testing programmes included annual testing of nearly every pupil with a standardised, commercially-procured test (including the Kindergarten stage). He stated that in the survey

*"the 3.7 million students in 50 public school districts took 2.6 million standardised tests, 740 000 state-mandated tests, and 2.3 million locally-developed tests."*

The average district's testing program was described as including

*"12 administrations of standardised tests (ie one at each grade level), 3 administrations of state-mandated tests and 9 administrations of criterion-referenced tests."*

Test Directors were also asked about the purposes as well as the frequency of testing in these 50 school districts. These purposes, listed as percentages of respondents, are shown in the table below.

Major purpose of test	Type of test		
	Commercial	State	Local CR testing
Programme evaluation	72 %	21 %	50 %
Accountability (student status or individual achievement)	66 %	42 %	27 7%
Diagnosis (instructional management)	55 7%	18 %	69 %
Selection (gifted or other special programs)	477%	2%	6%
Placement (eg kindergarten readiness)	257%	12%	77
Certification (promotion or graduation requirements)	1857%	64%	24 %
Guidance (eg vocational interests)	12%	3%	5%



The table above shows that state-mandated tests were used mainly for certifying (in 64% of districts) or monitoring achievement of individual students (42%). Commercial tests also served this latter purpose but their prime purpose was evaluating a curricular programme (72 %). Programme evaluation was also a common function of local criterion-referenced testing, but as might be expected, the prime function of such tests was diagnostic (formative).

Marks (*op cit.* p 42) considers that, despite the move to a national view of standards,

*"the state-wide testing programs will probably remain intact. The continuous expansion of standardised testing which has characterised education (in the USA) in the 20th century will continue to be one of the most publicly visible features of the educational system into the 21st century."*

Achievement tests, and in particular, tests of basic skills, may be used as part of the graduation requirements at the end of high school (the high school diploma). The basis of graduation is however continuous assessment by individual schools in the form of an accumulation of credits in individual subjects. (A credit involves, for each subject, attending classes for a year, passing particular prescribed tests and completing the written assignments.) A minimum of 14 credits is required, with an average of grade D, where A is excellent, B is good, C is average, D is pass and E is fail. The way in which decisions are made about grades can vary between schools, school district and states. Only in a few states (California and New York being the principal ones) are statewide achievement tests a major part of the criteria for graduation. While other states may have introduced minimum level competency testing prior to graduation, few appear to have considered the role of statewide testing as a major lever to implement curricular change.

Various changes are taking place in the field of achievement testing in the US. Computerised adaptive testing, based on banks of multiple-choice items, is growing in use. (An adaptive test uses information from a candidates' previous response to determine the difficulty of each successive item. Tests of similar reliability can generally be shorter than traditional multiple-choice paper and pencil tests.) The advantages and disadvantages of this type of test delivery now constitute a literature of their own. Legg and Buhr (1992) conclude that

*"although there are some differences in reactions to computerised adaptive testing by various examinee subgroups, (ethnicity, gender, age, ability and computer-experience being the variables) these differences should not preclude the valid interpretation of scores on these tests."*

However these authors appear to be describing a more sophisticated and user-friendly system of computerised adaptive testing (CAT) than is perhaps generally available. Plake (1993) warns about problems of content validity when item selection is purely psychometric, unrelated to topic categories, and about problems when students cannot review their answers and make changes.

A more fundamental movement away from multiple-choice, machine-scoreable achievement tests has however been gathering momentum in recent years. This is the move to "authentic assessment", alternatively called "performance assessment" or, in the more practical areas of learning, "hands-on assessment". Generally the candidate would have to construct a written response or undertake a practical task. As an example of this type of assessment, Brookhart (1993) suggests that a well-designed term-paper assignment can provide meaningful learning and authentic assessment, if the purpose, design and performance criteria are specified clearly at the outset. Baron (1992) echoes these sentiments, stating the need for

authentic and valid instructional tasks;

assessment tasks which foster active learning:

assessment tasks which are directed at processes which are critical to developing deep understanding of the content area;

assessment tasks which clearly communicate standards and expectations for student performance.

Plake (*op cit.* 1993) addresses concerns about validity and reliability, and the more practical concern about the time required to develop such measures; she suggests that there might be ways of reducing the costs, such as states sharing the development costs (where the curriculum was similar), using simulated tasks where possible and the use of machine-scoreable multiple-choice tests of process-based learning.

Proponents of this movement claim that standardised achievement tests, especially tests of basic skills, are narrow in scope and adversely affect teaching and learning by encouraging rote learning of a narrow range of content and skills. (Millar & Legg, 1993) conclude that further research is needed to establish the psychometric credentials of this "new" type of testing. Mehrens (1992), in the context of using performance assessment for accountability purposes, urges caution. However he accepts that performance assessments have the potential to measure important objectives that cannot easily be measured by multiple-choice tests.

It is difficult as yet to determine the extent of this movement. Millar & Legg (*op cit*) state that they are on the increase in local and state testing programmes, usually complementing rather than replacing traditional multiple-choice testing. Mehrens (*or cat*) supports this view. Cross, a former assistant secretary in the US Education Department, is reported as saying

*"something like one-quarter to one-third of states are on the road to performance assessment.....The rationale is to get away from children trying to memorise lists to seeing whether they have the ability to put everything together"* (TES 6.7.93).

In Maryland, where the emphasis in testing is tilting towards providing evidence that children can apply what they have learned, the same article states that,

*"the move from multiple-choice has been traumatic for all. Teachers have had to change their teaching."*

The state of Vermont is in the forefront of this movement to more authentic assessment, in the form of portfolios. It is currently in its second year of statewide implementation, and an evaluation is also underway. In response to criticism about low reliability, changes have been made to procedures and marker-training improved. Principals and teachers have so far reported that, although the work associated was burdensome, it was perceived by many as a powerful force for instructional change (Koretz, 1993). New York State, with its long-standing and more formal Regents examinations, intends to incorporate hands-on performance-based items in science tests.

It would appear that the companies specialising in testing are starting to respond to such changes. The California branch of the Educational Testing Service (ETS), for example, is developing models to serve as a basis for constructing and scoring performance tasks in science, and ETS is attempting to develop reporting mechanisms for authentic assessment. However in its annual report (1990) it stated

*"We must be prudent in our charges regarding the ills of multiple-choice testing and our claims about the wonders of performance assessment for instruction."*

There are studies on-going into the feasibility, acceptability and into the psychometric properties of this type of testing.

For real hands-on testing, however, vocational education has the edge over most other areas of the curriculum. Competency testing, based on skill standards for broad occupational clusters is the subject of a current federal initiative.

A further "standards project", with potentially national implications, has been initiated by a coalition of interested bodies, headed by the University of Pittsburgh. The aim is to develop national, performance-based examinations in Reading, Writing and Mathematics for each grade level. Many schools will be involved in the piloting of these examinations in Spring 1994, including those in both New York state and New York city.

Many universities and colleges, in addition to the high school diploma, require admission tests. These tests are provided by two large private testing agencies. Educational Testing Service (ETS) - which, on behalf of the College Board, provides the Scholastic Aptitude Test (SAT) - and the American College Testing Program which provides the American College Test (ACT). In 1999 approximately two-thirds of entrants took the SAT. Tests such as the SAT, despite being aptitude rather than achievement tests, are considered to be the benchmark or national reference point of American education (Eckstein and Noah, *op cit.* p 173). Designed purely as an allocative device, the SAT is composed of five 30 minute multiple-choice sub-tests, testing verbal and mathematical ability. Scores on the SAT are ranked, and institutions are interested in this relative ranking or norm-referenced information on potential students. The more prestigious universities or colleges also require scores on national achievement tests. Candidates would perhaps sit such tests in three subjects, from which a composite score would be computed. For the minority of students (5%) who wish to start their university education in Year 2, Advanced Placement Tests are commercially available. Both of these services are provided by ETS.

A re-designed SAT will be administered for 1994 admissions: the brochure describes it as having *"content and format changes necessary to ensure a valid measure of students' academic preparedness for college work throughout the 1990s and beyond"*. In particular it will recognize *"the increasing diversity of students in our educational system, as well as changes in how and what these students are being taught in secondary school"*. For the first time subject tests will include a direct writing exercise as well as multiple-choice questions. Although aptitude tests, by their nature, have less effect on curriculum content and hence on curriculum development than achievement tests, these changes to the SAT appear to represent a recognition at least that testing must reflect good practice in the classroom, in the way the curriculum is delivered.

Overall, American students are exposed to a large amount of testing in their school careers, some at school level, some at school district level, some at state level, and some as part of the admissions policies of universities and colleges. Tests which started their life with one purpose now tend to serve a range of purposes, some of which could be considered "high stakes" for either the individual pupil or the school.

## **CURRENT ISSUES ASSOCIATED WITH TESTING AND THE CURRICULUM**

### **High stakes nature of testing**

Airasian (1988) in an article on measurement-driven instruction argues that one of the main variables which has potency in the ability of a test to drive teaching and learning is the nature of the "stakes" attached to the results.

*"High stakes can and will drive instructions (p 10)*

Darling-Hammond (1988), endorses this view.

*"Given the incentive, especially with accountability, teachers will teach to the test. students will study for the test....and test scores will probably rise. "*

Madaus (1987) pointed out that whether the stakes attaching to achievement test scores were high Or merely perceived to be high, teachers develop strategies for increasing test scores. He lists the sorts of decisions which hang upon the results of such tests:

*"...on the basis of a test score a person can be denied access to kindergarten, retained in grade, denied a diploma, denied merit pay. "*

In a more recent article Desforges (*op cit* 1992) underlines the problem when, under federal policy, the (decontextualised) results of achievement tests are published in the form of league tables. In the press the figures are used

*"to praise or pillory teachers, principals and teaching methods. They are used by estate agents to rate neighbourhoods. The scores have become very high stakes indeed. "*

A large-scale (anonymous) survey on the use of standardised tests, based on a random selection of schools, and done with the backing of the State Superintendents of Education. was reported by Nolen et al (*op cit* 1992). They found similar problems, but also concluded that the pressure to perform well, communicated to students, contributed to various adverse physical and stress-related psychological problems.

A further issue relating to the high stakes nature of testing is cheating. In a recent nationwide survey of 7 000 high school and college students conducted by the Institute of Ethics, California, 61% of high school students and 32% of college students admitted cheating in at least one examination in the previous year (TES 4.12.92).

Given pressure to raise test scores, Desforges (*op sit* 1992) states that not only do teachers strive to align their teaching to the test, and encourage students to practise on similar items, even on the test itself, some ensure that low attainers absent themselves at testing periods. The effects of high stakes testing, as pinpointed by Darling-Hammond (*of sit* 1988) are endorsed by Cross (1992)

*"Research is consistent in demonstrating that as scores on the instrument being used for assessment increase, scores on other measures tend to decline. "*

### **Curricular and instructional alignment of tests**

The alignment of what is taught and what is tested (test validity) is a major theme in the literature of achievement testing in the US. In a recent study on the uses and abuses of achievement test scores, Nolen, Haladyna and Haas build on their earlier study of standardised testing in the state of Arizona (Haas et al, 1989). They conclude that lack of alignment between district or state curricula and the contents of standardised achievement tests exacerbates the dilemma for schools.

They note the local Department of Education's own findings (Bishop, 1989) that the best match between the state's list of essential skills and major standardised tests was quite low. Overall about a quarter of the state's objectives were tested by the most closely aligned test. Like many commentators they conclude

*"In situations where rewards are based on standardised achievement test scores rather than on mastery of state-mandated skills and content, the teachers, administrators and districts are likely to seek alignment by focusing on the skills, contents and formats of the tests. District adoption of packaged test-preparation materials contributes to this phenomenon. The end result of this process is the virtual abandonment of most state-adopted goals for student achievement."*

This describes a test-driven curriculum. It exemplifies an instructional environment which would tend to inhibit rather than tolerate or encourage curricular development or innovation. The test would at best tend to reinforce the curricular status quo, at worst encourage a kind of curricular regression. (It is worth noting that Arizona is now broadening the base of its assessment programme to include performance measures.)

Hall and Kleine (1992) report on a survey they conducted of perceptions of the use of norm-referenced achievement tests, the use of test-preparation materials and ethical issues relating to test preparation and administration. They had over a thousand respondents, nationwide, mainly comprising testing coordinators, principals and teachers. When asked "Has your district curriculum changed to better match the skills and knowledge measured by the district norm-referenced test?". 92% reported that it had (23% not very much, 55% somewhat and 14% very much). 28% of the teacher sub-group reported having experienced pressure to teach to the test. They conclude, having corroborated the earlier findings of Mehrens and Kaminski (1989) that there is little doubt that tests are exerting influence on what is taught in classrooms. The type of influence yet again was described as negative in nature, not conducive to curriculum development

Popham (1992) urges a move away from the twin extremes of highly detailed criterion-referenced test specifications (which can encourage drilling) and the "almost amorphous specifications" accompanying most standardized achievement tests (p 16) He suggests a middle level of detail, a level of specificity amenable to the delineation of multiple, not single, assessment targets (p 17).

The 1980s was a time when measurement-driven instruction was considered by many to be a reasonable way forward. Popham at this time (1987) was in the forefront of this development. However attitudes appear to have changed: while educationalists might agree that testing can drive learning or the curriculum, most would now want to ask the more important question of whether it ought to have such an effect; whether or not this is "putting the can before the horse".

### **Concern over standards and interpretation of results**

Concern over standards in education became something of a national obsession in the USA during the 1980s, not dissimilar to what was happening in the UK and France. Evidence of a fall in standards came from NAEP results and a decline in scores on tests such as the SAT. "A host of voices called for a tougher curriculum, fewer options, and a return to emphasising basic, agreed-upon knowledge" (Eckstein and Noah, *op cit* p 153).

Much of the truth about standards was difficult to detect, given the media-hyperbole surrounding the publishing of raw league-tables of results of achievement tests, and the now well-documented problems in interpretation of such results. The "Lake Wobegon effect" was discovered in 1987 and sparked off controversy which in turn spawned a considerable literature: average achievement test scores were found to be rising consistently, unaccompanied by any noticeable rise in achievement

The causes of this effect, which in part led to an under-mining of the reputation of standardised achievement tests, were as follows Test norms for major standardised tests may last for a period of 5 or 6 years During such a period it is possible for test scores to be pushed upwards sometimes by valid test preparation procedures, sometimes by more blatant methods, with the

result that few students eventually have scores equivalent to the bottom quartile of standard scores. Hall and Kleine (*op cit.* 1992) endorse Shepherd's article (1990) on inflated test scores and the Lake Wobegon effect. They cite as underlying causes the unrealistic pressure to raise test scores, and confusion about what is appropriate test preparation. Phillips and Finn of the US Department of Education (1988) suggest that the relatively good performances were due to unrepresentative norming samples, schools being able to pick the test most nearly aligned to their curriculum more easily than the norming sample could, motivation (given the high stakes for individual students and schools), re-use of tests and out-dated norms. They conclude that

*"the Lake Wobegon effect is actually a testing artefact that is structurally endemic to nationally standardised norm-referenced tests"*

Needless to say, test publishers would dispute these conclusions, and defend their norms.

One of the possible remedies suggested to deal with this somewhat unsatisfactory state of affairs (all these results, but which is true?) was a national achievement test. In a testimony to the House Select Education Sub-Committee on April 23 1991, Dr Edward De Avila, an assessment expert in testing language-minority students, summed up the main arguments against a national achievement test. His arguments centred around:

unfairness, given that children receive different instruction;

likelihood that a national test would dictate local curricula;

an additional test would drive low achievers from school. (Desforges (*op sit* 1992) also refers to the alienation of low achievers towards learning which relates to high stakes testing);

unnecessary, as it would not add to what is already known;

problems with language-minority students.

He considered the development of a national test to be a case of "putting the can before the horse".

The arguments in favour of a national achievement test have mainly been put forward by politicians, and generally concern commonality of standards and value for money. Madaus (*op cit* 1992) argues for an independent test auditing mechanism to assure the quality and valid use of tests .

### **Volume of testing**

Given the range of purposes now served by testing, and the range of levels within education which administer testing, it could be argued that there is too much testing. Even at kindergarten level, children of between 4 and 6 years can be given paper and pencil tests.

### **Technical adequacy of new types of testing**

There is perhaps a feeling that the situation might arise when, as the pendulum of change in relation to testing swings away from nationally-normed, fixed-response types of tests towards tests requiring an individually constructed "authentic" response well matched to local curricula that questions of technical adequacy, in particular reliability, might be overlooked. Miller and Legg (*top cit.* 1993) raise some issues relating to the reliability of performance assessment. Such Issues cannot be ignored, especially if such assessments are to be "high stakes" in future. To the benefits of increased test validity and greater participation by teachers in the crafting of tests must be added that of respectable reliability. Given the vast expertise available within the existing testing industry in the USA, this should not be an insurmountable problem.

## EFFECT OF THE EXAMINATION SYSTEM ON CURRICULUM DEVELOPMENT

It would appear that in the US, traditional achievement testing, whether by nationally-normed, commercial tests or by criterion-referenced tests emanating from the era when measurement-driven instruction was popular, have had a negative effect on curriculum development. Indeed by the increased pressure on teachers to teach to the test and spend time improving the test-taking skills of students, the effect on curriculum development must be judged to be retrogressive. Much of this effect has arisen from the raised stakes of the tests, and the new accountability purposes which have been bolted on to them. Add to these negative effects the reported stress problems among school students and the fairly high incidence of self-reported cheating in tests, and the overall effect of these examinations on what happens in schools is less than desirable. The tests do not of themselves generate these problems; the stakes attaching to them do.

The other important type of test for American (high) school students, aptitude tests taken by prospective university or college entrants, might be said to have more of a benign than a negative effect on curriculum development. Given the status of tests such as the SAT however, and the fact that they include some achievement testing, they too reinforce a kind of curricular status quo, although their intention is to reflect rather than impose a curriculum. They could not be described as instruments of positive curricular change, whether in terms of bringing new subject matter into the curriculum, new ways for students of dealing with the subject matter or new teaching methodologies.

The 1990's have however seen the growth of new types of testing (performance or authentic assessment), which address some of the weaknesses of more traditional forms of testing. They are more directly linked to local curriculum development, more concerned with issues of validity or curricular alignment, and generally more participative in their approaches *viz a viz* teachers. Their effect on curriculum development is thus more generally positive. The evaluation of the experience in Vermont of introducing performance assessment (portfolios) has found that many teachers have made substantial changes for the better in their own teaching (eg increasing the emphasis on problem solving and communication in mathematics) and, as reported in an NCME Newsletter (Koretz, *op cit.* 1993)

*"about half of a representative sample of principals reported extending the program to grades other than those included in the state's program."*

Such change, which in this case extends beyond the confines of its original remit, suggests that testing can be a powerful force for positive instructional change. Performance assessment in such cases appears to be forging a new relationship between curriculum innovation and assessment in the US: it is reasserting the primacy of curricular decisions, rather than assessment decisions. By changing the emphasis on how the content is presented to the learner and how the learner is required to interact with the body of knowledge, it changes the curriculum.

However, as yet these performance assessments lag behind traditional tests in relation to test reliability. This is a very important aspect if high stakes are to be attached to the results of such testing.

Some states are now moving towards a system of multiple indicators, not exclusively dependent on the results of any one type of testing. As long as this does not mean considerably more testing for school students, then perhaps it represents the best of both worlds.

There would appear to be a climate for change. Of the small group who responded to the researcher's questionnaires all at national level felt there was pressure within society for change and 15 out of 19 who responded from the state or district perspective, were of a similar

persuasion. They considered teachers and politicians were the prime groups wishing change. but also academics and employers. Parents were not judged to be as exercised in this debate.

President Clinton's Education Reform Bill, at present making its way through the democratic process, offers the possibility of a National Education Standards and Improvement Council: the rhetoric sounds more consensual than combative. It would seem to represent the possibility of both the states and the federal government having a role to play in the setting of curricular frameworks and performance standards, without the autonomy of the individual states being infringed. However it will be far from easy, given the complex relationships which exist in the area of control of examinations and the curriculum.



## CHAPTER 8 ZIMBABWE

### BACKGROUND

Zimbabwe, with approximately 11 million people, is one of the smaller countries in this study in terms of population; only Scotland is less populous. On the other hand it has the fastest growing population (3.3 % per annum), and consequently the most youthful age structure of the 7 countries. This fast growth is largely a function of the fact that the death rate is reducing more rapidly than the birth rate. In terms of educational provision, youthfulness of the population is of particular significance: in Zimbabwe the number in the 0-14 age group expressed as a percentage of the number in the 15-64 age-group is 84%. Approximately half the population is under 16 years of age. Average population density is reasonably low (28 per square kilometre similar to Colombia and the USA). Unlike these countries, the population remains predominantly rural, with as yet only 29% living in urban areas. However, urban population growth is occurring at almost twice the average rate. Table 1a shows a selection of these demographic features.

GNP per capita is in the region of US \$640 per annum, low in relation to economically developed countries, but, like Egypt, near the average for developing countries. The economy has been adversely affected by a series of problems: the war for Independence and the oil crisis of the 1970s caused major economic disruption; and successive years of drought have since had an adverse effect. Debt servicing has therefore held back spending on services such as education (Kellaghan and Greaney, 1988, p 1, Peil 1990, p 314). In 1970 debt repayments accounted for 2% of exports of goods and services: by 1990 this had risen to 19%. The proportion of the national budget spent on education including teachers' colleges and the university, rose steadily from 13% in 1978/79 to a peak of 25% in 1985/86 (Chung, 1990, p 194). Since then it has fallen back somewhat but, despite economic setbacks, Zimbabwe continues to spend a larger proportion of GNP on education than any of the other 6 countries in this study and more than many other African countries (Edwards and Tisdell, 1989, p 74).

Poverty is something Zimbabwe has as yet not managed to eradicate: UNICEF (1993) figures for nutrition - similar to those for Egypt - are a grim reminder of reality for many children. During the period 1980 to 1991, on average 12% of children aged 4 or under were underweight to a moderate or severe degree. In the same period a third of children (31%) aged between 2 and 5 years suffered from moderate or severe stunting. Rural poverty is a particular problem. Added to the drought and consequent higher prices there is a lack of land. Fathers frequently have to migrate to urban areas for work. 15% of rural dwellers, earn less than Z\$100 a year (Graham-Brown, 1991, p 101), and consequently find it difficult to keep their children at school.

As in Egypt, adult illiteracy is widespread (see table 1b). Approximately one quarter of adult males are illiterate and the proportion is higher among women (40%). However this proportion represents a considerable improvement on the 1970 figures, due to mass literacy campaigns.

The other major problem affecting education is unemployment, particularly among school-leavers. Graham-Brown (*op at*, p 104) calls the rise dramatic; Bennell and Nyakonda (1992) consider youth unemployment to have reached crisis proportions, with no more than a third of school-leavers finding jobs in the formal sector of the economy. Masango (1991) reiterates this view, adding that even those leaving school with good results find jobs hard to come by.

Since Independence the education system has had to expand rapidly. Before 1979, black children were almost entirely excluded from government schools. Blacks who were educated, and this was rarely beyond primary, received their education at schools run by Christian missions.

..

Schooling for African children was not compulsory, as it was for the children of Europeans. After Independence in 1980 the Ministry of Education and Culture introduced free primary education for all children from grades 1 to 7, and extended secondary education. Prime Minister Mugabe put the democratisation of access to education at the top of the national agenda, partly because of his Marxist view of egalitarianism and partly in order to eliminate the racial and tribal frictions of the pre-Independence period (MacKenzie, 1992, p 104).

Many of the educational problems Zimbabwe faces are typical of developing countries, and in particular of sub-Saharan Africa. Mayor (1990, p 447) describes the whole area as being in a state of emergency as far as education is concerned, with a larger task to accomplish in a shorter time than other areas.

It is thus against a background of colonial history, population pressure and considerable economic problems that Zimbabwe's post-Independence education system has developed. Chung (*op cit* 1990, p 191), a Minister of Education, sums up the aspirations- and the problems thus:

*"At Independence the Government of Zimbabwe decided that every child has a right to both primary and secondary school education. This aspiration, noble as it is and based on the belief that the development of human resources would form the foundation of all the development, is easy to enunciate but difficult to fulfil. This is particularly so for a Third World country with very limited financial and material resources."*

#### **GENERAL FEATURES OF THE ADMINISTRATIVE STRUCTURE OF EDUCATION**

The Ministry of Education and Culture operates mainly at the level of policy-making and curriculum control in education. However, like Japan, it also administers a minority of schools, and provides a framework within which other responsible bodies can build, staff and administer schools.

The rapid expansion of school provision during the post-Independence period has been made possible through the enlisting of the community in self-help projects (Chung, *op cit*, p 191). Only a small proportion of the schools are directly administered by the government (6% of primary schools and 13% of secondary schools). Since 1980, only the secondary schools in this category have been built by the government; primary schools have had to be built by District Councils and parents, using their own resources. Most of the recurrent costs of these schools are met by the government, but a tuition fee, albeit subsidised, is charged for secondary schooling. (In 1990 this fee was Z\$135 per annum for a non-boarder.) Almost every government school has a (voluntary) parents' association. The aim of these associations is to supplement the provision of facilities wherever possible. The parents raise money for libraries, additional classrooms, halls, sports' facilities and the like - built to government specifications - and also for additional teachers so as to lower the pupil-teacher ratio.

The majority of schools are grant-aided by the government but established and maintained by "responsible authorities": this group comprises independent schools, and schools run by District Councils, missions, commercial farms and mining companies. The government pays the salaries of teaching staff, provides building grants and pays a per capita tuition grant at both the primary and secondary stage. Otherwise the capital and recurrent costs are met by the responsible authority. Fees at secondary school vary considerably. For example, fees at an average elite day school are approximately 12 times those charged by a District Council day school (many of the latter operating double-shift or "hot-seating"), and the fees at an elite (former "white") boarding school are, on average, 7 times as high as those charged at a mission boarding school (Chung, *op cit*, 1990).

Mine schools receive a subsidy from the mining companies as well as from the government, and are considered to provide adequate facilities. Children of workers on the commercial farms have perhaps the poorest chance of education (Nhundu, *op cit* 1989). They frequently live a long

distance from other schools, and are thus dependent on what the farmer or company provide. A survey in 1988 found that on two-thirds of these farms there was no provision, and that where schools did exist, the quality was questionable (Graham-Brown, *op cit.* p 103).

Chung concludes that the parental input to the expansion in school provision has been crucial, but sees class differentiation as a major disadvantage of this system,

*"with wealthier parents paying substantially more than poorer parents, resulting in lavish provision on the one hand and very meagre provision on the other"* (p 194).

Nhundu also comments on what would appear to be an unfortunate consequence of a policy geared to widen access to education and involve parents and communities in provision of facilities. He concludes (*op cit* p 255),

*"As long as better qualified and experienced teachers continue to drift into urban areas and into schools with superior facilities, and as long as current government provisions for salary: disbursement are in operation, the privileged classes will continue to be the beneficiaries of the education system."*

However, Riddell and Nyagura (1991) in their research into differences in achievement in secondary schools in Zimbabwe found that, after controlling for prior academic achievement and basic resource inputs, some District Council schools were more effective than would be expected and some high fee schools less effective.

One of the most intransigent problems in Zimbabwe's school system is the lack of trained teachers. In non-government schools half the primary teachers are untrained, and the situation at secondary schools is only marginally better, with 45% untrained. The situation in government schools is considerably better, with 7% and 19% respectively. In rural areas it is particularly difficult to attract staff. Poor school conditions and inaccessibility are two of the main reasons. Nhundu states that 90% of primary teachers in rural areas are untrained (*op cit* p 253).

### **Teacher training**

The main reason for the relatively high proportion of untrained teachers has been the rapid expansion of education post-Independence, with less well-trained teachers being accepted into the profession (Edwards and Tisdell, 1989, p 75). The problem of teacher supply has been somewhat addressed by the training colleges in that more "on the job" training has been introduced and distance-learning materials made available.

One of the problems for training colleges is the tension between introducing trainee teachers to innovative teaching methods and preparing them for the realities of a prescribed core curriculum, heavy teaching workload and a lack of equipment (Dzvimbo, 1988).

In-service training is provided by the Ministry of Education and Culture through the colleges of education, covering curricular issues, teaching methods, and to a limited extent, assessment issues. It is not compulsory.

## **BASIC FEATURES OF THE EDUCATIONAL SYSTEM: AGES, STAGES. TYPES OF SCHOOL, CLASS SIZE AND PARTICIPATION RATES**

### **Ages and stages of education**

Typically pupils attend school from age 5 or 6. There is no official minimum school-leaving age as such: pupils can drop in and drop out of the system as appropriate to their circumstances. There are 7 years of primary schooling (grades 1 to 7) and up to 6 years of secondary schooling. These 6 years are divided into three stages, each lasting two years and each stage culminating in a public examination (see below).

### **Types of school**

The main distinction made is between primary and secondary, and within each stage, the body responsible for establishing and running the school (see above).

### **Participation rates**

After Independence enrolment ratios started to rise sharply. In the primary sector, enrolment ratios had reached 100% by 1984 (Chinapah, 1991, p 30). While primary enrolment is high, only three-quarters of the children manage to complete grade 7 (UNICEF 1993). Secondary enrolment also rose rapidly after Independence. In 1978 there were 66 thousand secondary pupils; by 1990 the number had risen 10 times (Masango, 1991, p 3). Table 1b shows gross enrolment at the secondary stage in 1990 to be 50% and rising. UNICEF statistics (*op cit* 1993) covering the period 1986 to 1990 show Zimbabwe as having one of the highest secondary enrolment ratios in Africa. Throughout Africa in general during the 1980s enrolment did not generally keep up with population growth (Mayor, 1990, p 444).

Pupils drop out of the educational system at all stages: some because of the cost of fees, some because their parents need their help on the land some because of the well-known fact that there is a high failure rate in the O Level examination and some because of increasingly poor job prospects. Drop-out rates are necessarily worse for the poor, especially the rural poor. Peil's research in Nigeria, Sierra Leone and Zimbabwe into the factors governing parental decisions about the education of their children showed that children of rural dwellers consistently got less education than those of urban residents (1990, *op cit*. p 319). Parents frequently had to decide which of their children to send to school, particularly at the secondary stage. Peil also found that girls were more apt to drop out of education than boys. She writes (p 325)

*"Paradoxically, after having been roughly on a par with boys in Zimbabwe when most education was limited to primary schooling, girls appear to be falling behind as opportunities for higher education grow."*

Writing in December 1992, Mbanga gave the secondary school enrolment ratio of girls to boys in Zimbabwe as 10:13, although the proportion of girls staying on for a secondary education has been growing since 1980. She also noted the high drop-out rate among girls in Zimbabwe's secondary schools: 200 000 girls drop out each year (TES 18.12.92). This is an example of how the increasing debt crisis and consequent poverty directly affect families and individuals.

### **Class size**

Table 1c shows the overall pupil-teacher ratios (primary 36, secondary 28) in Zimbabwe to be the highest for the 7 countries in this study. This is similar to figures quoted by Edwards and Tisdell (*op at* 1989). However there is considerable variation between schools, given the policy whereby parents' associations in the wealthier areas can employ additional teachers so as to reduce the class size.

## THE CURRICULUM

*A questionnaire was completed by three Ministry of Education and Culture contacts, and by a small opportunity sample of HI District Education Officers who were furthering their studies in Scotland during 1993. This very small and unrepresentative sample can only give a flavour of perceptions within the educational community in Zimbabwe. Nevertheless the general unanimity of many of the responses is interesting.*

### Control of the curriculum and curriculum development

At Independence, Zimbabwe inherited a colonial curriculum which has been criticised as racist, elitist, Euro-centric, competitive, individualistic and capitalist-oriented (Jansen, *Op Cit.* 1991. p 79). Following Independence, a curriculum reform committee was set up and there followed a period of considerable curriculum change. Decisions were taken to localise the O Level syllabuses and examinations, and to vocationalise the secondary curriculum. The History syllabus was radically changed and the science syllabus brought up to date.

An Education Act in 1987 enshrined the idea of a common curriculum for all schools, irrespective of whether or not they were administered by the government. Some of the independent schools would have preferred to retain British syllabuses, but this was not allowed (Masango, *op cit.* 1991).

The school curriculum is centrally prescribed by the Ministry of Education and Culture. Questionnaire respondents agreed that there was little freedom regarding curricular content, but more freedom regarding methods of teaching, and the possibility of using additional texts. Developments are orchestrated and disseminated by the Ministry, through its Curriculum Development Unit (CDU). The CDU compiles a syllabus for a specific school subject. Such a syllabus contains an outline of the various topics and sub-topics to be covered in all schools.

In the case of History a new syllabus "The Political Economy of Zimbabwe" (PEZ) was completed in 1987 and was to be examined from 1990 onwards. It presented a Marxist view of the history of Zimbabwe. However it was contested vehemently, most particularly by the Catholic church. The debate in the national press was "vibrant" (Jansen, *op cit.* p 86). The syllabus was eventually withdrawn in 1989.<sup>1</sup>

Developments in science were less radical but more successful. In this case the curriculum development was undertaken jointly with the University Faculty of Education. The main thrust of the development was to encourage practical science in schools, and to this end, low-cost, simple science equipment was designed and distributed to secondary schools (Masango, *op cit.* p 6).

Vocational subjects, namely bricklaying, carpentry, machine-shop engineering and motor mechanics were introduced into the curriculum in 14 pilot schools in the late 1980s. This development has now moved on to the implementation phase, but uptake suffers from the high cost of equipment the lack of trained teachers, and prejudice against vocational education (Masango, *op cit.* p 10 and Graham-Brown, *op cit.* p 106).

Writers such as Jansen would however contend that despite radical curriculum policies, little has changed in practice (*op cit.* 1991, p 76, p 91). He refers to the deep-seated colonial legacy reflected in the curriculum (still largely academic), the vast difference in school provision between black and white Zimbabweans, a pedagogy which depends on rote learning, and an examination system still largely controlled from England. All these features remain relatively intact despite (more than) a decade of Independence (p 83).

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<sup>1</sup> *It is note-worthy that history, more than any other subject, is the arena in which contests are to occur, striking as it does at the heart of what it means to educate, what types of knowledge are appropriate and axed, and who should make such judgements.*

## The Curriculum

Primary education for all has been a priority since Independence. The main subjects taught are African language, English and mathematics. From upper primary onwards, the medium of instruction is English, a second language for almost all pupils. This is seen as having the advantage of treating all language groups equally. (However research done in the context of East Africa would suggest that this can disadvantage pupils when it comes to assessment (Eisemon. 1990, p 76). This is also acknowledged as a potential problem by Kellaghan and Greaney in their study of 14 African countries (*op cit.* p 48).)

At the secondary stage there is a core curriculum for two years (consisting of African language Shona or Ndebele - English, mathematics and science. Beyond this core, the general picture given by the respondents to the questionnaire is of little or no subject choice for pupils, but of a menu of available subjects varying between schools. Beyond Forms I and 2 the curriculum tends to become more specialised, with some schools having a more vocational slant than others (see above). English remains the main medium of instruction.

The style of learning tends to be academic in nature (Graham-Brown, *op cit.* p 105).

## Textbooks

Once a syllabus has been published by the CDU, national publishers are invited to submit drafts of textbooks conforming to the state syllabus. The CDU's Evaluation Unit then checks the submitted drafts to ensure they conform. Only approved textbooks are distributed to schools (Jansen, *op cit.* p 80). Despite the central control of textbooks, it would appear from the questionnaire responses that there exists some choice. 12 of the 14 respondents considered that these textbooks are judged beneficial by teachers. MacKenzie (*op at.* 1992, p 104) considers state intervention in textbook contents in Zimbabwe to have been "benign", certainly in comparison to many other countries.

In government schools textbooks are provided by the state, but this is generally not the case in other schools (Chung, *op cat* p 193). Supply is therefore variable, and in Riddell and Nyagura's study of achievement in Zimbabwe's secondary schools, was found to be a significant variable in examination success (*op cit.* p 51). Edwards and Tisdell (*op cit.* p 74) suggest this would be an worthwhile area for increasing provision. A World Bank policy study (1988, p 4) also concluded that

*".. the safest investment in educational quality in most countries is to make sure that there are enough books and supplies. "*

## EXAMINATIONS

### Control of examinations

Prior to Independence the purpose of the examination system was to control access to secondary and Higher education. The Education Act of 1987 attempted to eradicate differences in access to examinations (Masango, *op cit.* p 2).

The Ministry of Education and Culture has ultimate control over the examination system in Zimbabwe, and generally executes this control through the CDU and the Examinations Branch. Most school examinations are developed through the CDU, in line with national syllabuses and approved textbooks (Jansen, *op cit.* p 80).

There is a national examination at the end of each stage of schooling. At the culmination of the primary stage pupils sit the national grade 7 examination. It is multiple-choice in format, machine-marked, and judged to be valid by all 14 respondents. The subjects examined at this stage are African language, mathematics, English and a general paper. The examinations are presented in the medium of English. The results of this examination are graded on a 1-9 scale, and although there is no official selection for secondary schooling, prestigious schools tend to cream off the most able pupils.

At the end of Form 2 (age 14/15) at secondary school all pupils sit the Zimbabwe Junior Certificate.. The "JC" as it is labelled, is looked on as a preparation for the next examination hurdle, the O Level. Its purpose is therefore somewhat allocative, if not formally a selection device. Compulsory subjects are mathematics, English, science, history and geography. Again all respondents considered the JC a valid national examination, with common standards imposed across the country. However the lateness of the results was mentioned as a problem in a minority of cases.

Since 1984 there has been a policy of open access to sitting O Levels and consequently more pupils now stay on to Form 4 to attempt these examinations. The University of Cambridge Local Examinations Syndicate (UCLES) O Level represents perhaps the strongest link with an anglophone inheritance, despite a programme of localisation of syllabuses and examinations. The localisation initiative dates from 1986 (Masango, *op cit* p 5). Most question-setting is now done in Zimbabwe, with some external question paper moderation by UCLES. Marking is also done in Zimbabwe, but UCLES retains control over pass marks and results. This arrangement presumably has been tolerated because it helps to allay parental fears about falling standards, particularly among the white community.

Following the O Level tradition a range of question types is employed, and practical assessment is used for such subjects as Science and Technical. The failure rate is very high, but this does not appear to deter pupils. The percentage of pupils who did not pass a single subject with grade C or better rose from 2% in 1981 (ie pre open access) to 42% in 1985 (post open access). In 1990 the figure was still 42% (Masango, *op cit.* p 9). Even higher failure rates (up to 90%) are quoted for rural candidates (Graham-Brown, *op cit.* p 105). This would appear to represent a significant waste of resources and an inappropriate curriculum for a large number of pupils. (The O Level is targeted at the top 30% of the cohort.) Questionnaire respondents were ambivalent about the validity of the O Levels: "valid to an extent", "validity debatable in the African context", "areas to be improved", "external exams less so" were more typical responses than "valid". Nevertheless, given the prestige of these examinations, parents are generally keen for their children to attempt O Levels. MacKenzie (*op cit.* 1988, p 350) sums up the problems brought about by inappropriate examinations and a lack of employment or further education opportunities.

*"The emphasis on achievement in public examinations, and in particular at Ordinary level has created expectations that, for most school leavers, will be dashed either by the*

*disappointment of examination failures or by the frustration of unemployment or, indeed, by a combination of the two. Still others will achieve O Level success and fail to secure places in further education.*”

Pupils with good O Level passes may go on to follow a two year Advanced (A) Level course. A level is as yet non-localised (with the exception of African language). Marking is almost entirely done in England. Localisation of the A Level will probably occur, but there are conservative elements in society which might oppose such a move, for example commerce, industry, and possibly parents.

Overall, despite strenuous efforts to make the examinations more indigenous. as pupils move up the school, the stronger are the resonances and effects of the pre-Independence examination system.

### **EFFECT OF EXAMINATIONS ON CURRICULUM DEVELOPMENT**

Respondents were asked to evaluate the effect of public examinations on various aspects of the curriculum, including innovation. Their responses, though small in number, were generally consistent with the literature on such matters. The response categories in this case were "very much", "a considerable amount", "a small amount" and "not at all". Considering only those responses in the top two categories - ie "very much" and "a considerable amount" - 10 of the 14 respondents considered that the examinations clarify the curriculum and the standard expected. More negatively, 11 of the 14 judged that the examinations control curriculum content and a similar number that the examinations lead to greater value being placed on theoretical rather than practical knowledge and skills. This would corroborate claims that the curriculum is overly academic (see above). However, while claims that rote learning is common were not refuted, the statement that examinations lead to a greater emphasis on memorisation of facts rather than understanding was not supported by all respondents. Ministry responses tended to see this link, but only 3 of the 11 Education Officers judged the examinations to be the cause of such pedagogy. In relation to a more general question about the affects of examinations on teaching and learning, there was considerable ambivalence, with half considering the effect beneficial and half detrimental. This may be due to the general nature of the question. covering as it did all public examinations. The questions relating particularly to curriculum innovation tended to be answered in the negative. This was the case both in relation to bringing new subjects into the curriculum and new content into existing subjects. In each case only 4 of the 14 chose "very much" or "a considerable amount". However when asked whether or not examinations positively hindered innovation in curricular content, half responded firmly with "not at all". A similar response was elicited in relation to innovation in teaching methods.

Respondents were asked to make an overall judgement about the effect of examinations on the school curriculum, and this produced some interesting comments. Positive aspects were fairness to all groups, the production of evaluative information in relation to the curriculum and standard setting. (This view would accord with the World Bank view of the value of examinations as instruments for raising academic standards (Kellaghan and Greaney, *op cit.* 1988, p 4). Negative effects mentioned were encouraging rigidity rather than innovation in the curriculum, overemphasising academic knowledge, the examined subjects getting more attention than non-examined subjects, and within any subject, teachers teaching what is to be examined rather than what is in the national curriculum. Effects on candidates -such as examination pressure - were also included, and were generally negative. An example of the effects of over-emphasising the examined curriculum at the expense of the unexamined happened in 1990-1991 in relation to the JC. In 1991 the compulsory core of subjects was extended to include geography and history instead of merely one or other of them. Schools had only approximately 7 months to prepare for the change before the examination diet, and consequently had to drop subjects such as agriculture and technical subjects from the curriculum to ensure that their pupils would not be disadvantaged



in the national examinations. The original situation was reinstated the following year, following protestations from teachers.

In relation to the general question "To what extent do you consider the present system of public examinations to be meeting the needs of the individual pupil?" only 3 of the 14 considered that this was the case. The most common response was "not at all", or "very little" or "panty". This unsureness was found with both groups of respondents. The 3 who considered that public examinations are meeting the needs of the individual justified this belief in terms of the fairness of the screening procedure for "the best schools", given restricted resources. The same question was asked in relation to the needs of society and the economy at large. Responses were even more negative in this case, with only one respondent considering such needs to be met adequately by the current examination system. Two explicitly mentioned the financial drain on the economy of imported examinations. 9 respondents (though not those of the Ministry) considered that there are currently pressures within society for change to the examination system: high failure rates at O Level and lack of localisation of the A level being specifically mentioned. The unease of parents was mentioned by 7 respondents in this context, of teachers by 5, of employers by 5 but by universities in only 3 cases. The financial burden of examination fees on parents was specifically mentioned. It would seem that parents are somewhat ambivalent about the O Level: concerned about the failure rate and the cost of the examination, but also aware of its status. Informed commentators such as Masango (*op cit. p 9*) acknowledge the unsuitable curricular content of the O Level for such a wide candidature.

Examination results are not widely published in the press and thus what has become a contentious issue in the USA and Scotland for example, does not apply to Zimbabwe.

Another area in which examinations tend to have a far-reaching effect on the curriculum, and consequently on curriculum development in general, is in the use of English as the examination medium. Because pupils will undertake O Levels in the medium of English, the JC examinations 2 years prior to the O Levels have to be taken in the medium of English too. Because of this the curriculum of the upper primary school has to be taught in what is a second language for pupils. Although there are advantages for the system there are disadvantages particularly in relation to slow learners. Eisemon's research, though not undertaken in Zimbabwe, is relevant to this issue (*Op cit. p 76*, see above).

Eisemon's work in the context of Kenya also refers to the effect of examinations on the method of teaching (*op cit. p 80*). He found that the teaching strategy adopted (and lesson preparation) changed when teachers were asked to prepare their pupils for a test eliciting higher level cognitive skills.

It would appear that, in Zimbabwe, while the curriculum is nationally specified and curriculum development planned centrally, examinations exert a major influence on how any curriculum development is eventually implemented in the classroom. Such is the status of O Levels, particularly among parents, that teachers are constrained to do whatever they can to ensure as many as possible of their pupils pass, despite the fact that the majority are sitting an examination which is not targeted at their ability level.

The examinations however have reinforced such aspects as practical tests (for example in science) and the development of the science curriculum in all secondary schools. Masango (*op cit. p 8*) refers to problems in extending such practical tests to a range of subjects, due to shortage of equipment. He states

*"... we do have to face the realities of the situation and recognise that mass examinations may need alternative examination techniques in the future if an open polio for O level entry is maintained."*

Curriculum change, and vocationalisation of the curriculum in particular has met with little support (Jansen, *op cit.* p 83). It is unfortunate that, as youth unemployment rises, the status of examinations which have high failure rates can also rise, and make curricular reform more difficult. It would appear that a localised, standards-referenced examination system with appropriate targets for a range of ability levels, and encompassing both academic and vocational subjects might be worth considering. However, it is recognised that the development of a genuinely national examination would carry considerable political risk.

## **CHAPTER 9 CONCLUSIONS**

### **Overview of curriculum development and examination systems in the seven countries**

It may be useful at this point to reflect on the main lessons to be learned about the relationship between examination systems and curriculum development from each of the countries in this study

#### **Colombia**

Up until very recently In Colombia, control of curriculum and examinations was firmly within the Ministry of Education, with the administration of examinations delegated to the Institute for the Furthering of Higher Education (ICFES). However, current reform of the constitution involves a considerable measure of devolution of curricular planning to Departments (regions) and town councils. By implication this would also involve devolution of curriculum development and examinations. To an extent the new responsibilities are still unclear.

As yet the curriculum at primary and secondary level is tightly prescribed. and. in the case of the secondary stage, linked to a high stakes, group certificate at the end of secondary schooling. Teachers have little curricular freedom, despite some choice of textbook. Pupils have a crowded curriculum, particularly those attending prestigious private schools.

The Ministry has been engaged in curricular reform since 1976 (*Renovacion Curricular*): this was planned not only in terms of bringing in new examinable syllabuses but also in terms of the design of teaching materials, of evaluation and teacher training. However, as in the case of other reforms, change did not always involve new ideas or approaches.

Besides *Renovacion Curricular*, there have been several quite large-scale curricular reforms over recent years. many originating outwith Colombia. and representing a top-down model of curriculum development. One of the most successful has been *Escuela Nueva* (New School). This movement has, since 1975, attempted to increase participation rates in rural districts, and helped teachers with the development of appropriate methodologies to deal with the wide age range which typifies smaller schools. By adopting a more flexible approach to promotion and by stressing the importance of affective objectives, these schools have attempted to reflect the needs of rural communities.

At the secondary stage, however, the examination system tends to dominate the learning process. ICFES examinations are almost exclusively multiple-choice, and the results norm-referenced. They have been accused of narrowing the curriculum, and resisting reform. They tend to focus on the theoretical at the expense of the practical and affective areas of the curriculum; they test knowledge rather than engender a process-based approach to learning. And because they are high stakes for both pupils and institutions - league tables of raw results being published - there is a strong temptation to teach to the test. While it is clear that these examinations have not been instruments of curriculum development, they have nevertheless maintained national standards.

A current innovation which may have a more profound effect on what actually happens in classrooms, and on the relationship of the curriculum to examinations, is "flexibilisation" of the curriculum. This term embodies the idea that the curriculum should be responsive to local needs rather than be centrally prescribed. It suggests a bottom-up rather than top-down model of curriculum development. However, to retain comparability of standards, it would seem to be necessary to have a national standards body setting the parameters, and describing the criteria within which local solutions to curricular issues could be worked out and officially recognised.

Again the importance of affective objectives has been stressed, given their importance in the under-pinning of democracy. Such objectives are difficult to assess. However it should not be impossible to move away, in terms of assessment, from tests of factual recall and purely academic knowledge. The reforming of learning as a process (knowing "how" as well as knowing "that") and adopting problem-solving approaches might allow affective objectives to be addressed. It would appear that a body such as ICFES, with experience of testing, would need to be involved in the development of an assessment strategy which allowed for local variation whilst maintaining national standards. If multiple-choice items were to continue, there would need to be banks of items (testing more than knowledge and understanding), and if multiple-choice testing were abandoned, some quality-control mechanism for marking standards would need to be developed. Given the current importance of multiple-choice testing to the maintenance of standards particularly important when teachers are not all well trained - it could be argued that a new system of assessment should build on this sound base, gradually bringing in complementary forms of assessment. This development would appear to be a major challenge to all involved in Colombian education.

### **Egypt**

In Egypt, the curriculum is specified in considerable detail at all stages through official textbooks. Curriculum development has been introduced through such textbooks and associated teaching materials. At primary level the current move is towards national tests (at Grades 3 and 5) with some local variation in items allowable. This is a curriculum-driven development with the potential to encourage new teaching approaches (such as problem solving, oral and practical work), provide diagnostic information on individual pupil strengths and weaknesses and evaluative information about the curriculum innovations. However, it would appear that for this potential to be realised, teachers would need smaller classes and appropriate training.

Another development with curricular implications is the plan to extend community school development. This development has similarities to Colombia's "flexibilisation of the curriculum". It could cause headaches for a traditional type of national assessment, but with the development of item banks and the use of pre-tested items to link parallel tests, it should not be impossible to allow a degree of local flexibility in the curriculum.

At the secondary stage the Thanawiya 'Amma examination continues to exert considerable influence on the curriculum. Its content, largely defined by the needs of university entrants, is not wholly appropriate for the ever-expanding numbers who stay on at school. As is the case for most examinations in Egypt, the emphasis is on memorisation of factual information, and the effect on teaching and learning styles is consequently negative. The Thanawiya 'Amma is a high stakes examination for pupils, with the result that such negative effects as teaching to the test (ie distorting the curriculum), cramming, the proliferation of private tutoring and "external" crib books are endemic. Cheating is also a problem.

Reform of the Thanawiya 'Amma has been mooted but so far this examination has remained the cornerstone of Egyptian secondary education. It would appear to be difficult to reform, given the high stakes nature of the examination, and the continuing pressure for more stringent selection processes for higher education as greater numbers gain the Thanawiya 'Amma, and as employment prospects decrease.

An aspect of the organisation of Egyptian education which would appear to inhibit well-articulated curriculum and assessment reform is the overlap in function of bodies with responsibilities in these areas.

### **France**

In France, despite some decentralisation of education since 1986, policy-making and control of the curriculum and examinations remains largely within the Ministry of Education. Control of

the curriculum is also exercised through authorisation of textbooks. Curriculum development in relation to content of courses is centrally controlled. There is however considerable freedom concerning pedagogy, and curricular innovation is taking place in this area, particularly in the wake of national testing. National tests, brought in after consultation with the teaching profession, are geared to providing information of a formative nature at 3 stages in a pupil's education. The diagnostic information which they yield is encouraging new teaching strategies which pay more attention to individual differences. The role of the teacher in national testing is participatory, and the professionalism of the teacher in relation to the interpretation of results is accepted as a necessary input. The results also provide information of an evaluative nature for the Ministry.

Beyond second year of *college*, curriculum and examinations are inextricably linked: pupils choose a curricular package which is directly equivalent to a particular qualification. At this stage not all choices are positive choices; some pupils get siphoned off into vocational courses. The various curriculum packages and related qualifications are of varying status, and although movement between these tracks is theoretically possible, it is not common.

The *baccalauréat (bac)* in particular, although to an extent a bulwark against major reform, has been used to bring about considerable change in the curriculum of the *lycée*. To the purely academic *bac series* (tracks) have been added a range of technological and professional/vocational *bac*. This diversification has been in response to, and in turn has encouraged, a higher staying-on rate. The aim of 80% of any cohort attaining the *bac* certificate no longer seems an impossible dream.

This diversification in the curriculum has also encouraged different forms of assessment. Pupils at *lycées professionnels* studying for their *bac professionnel* for example, are frequently assessed internally on a continuous assessment basis. Exams in the prestigious *series* still tend to be external, to emphasise theoretical aspects and formal proofs, and require extended written responses based on reflection and analysis.

Given the high stakes attaching to these examinations, reform of a more radical form *is* difficult. The effect is felt further down the school system too: the curriculum of pupils at *college* to an extent suffers from a backwash effect of early specialisation for a particular *bac* track. The high stakes of the *bac* also encourage a system where teachers feel they have to concentrate on the formally-assessed areas of the curriculum; to teach to the test.

The "currency" of the *bac* has fallen somewhat as the proportion of the cohort gaining the *bac* has increased. It is no longer a sufficient entrance qualification for prestigious university faculties. Thus curricular reform has extended pressure upwards: to gain access to these faculties, pupils must now have scored highly in the most prestigious *bac series*, have an impressive school record and have passed the *concours* (an entrance examination organised on behalf of prestigious institutions and faculties by the government). Restrictions on the number of optional subjects a pupil may take for the *bac* have recently been lifted, thus putting more curricular and examination pressure on pupils. The further up the system a pupil progresses, the higher the stakes and the more "make or break" the examinations become.

The *bac* is not only crucial for individual pupils: the results are becoming high stakes for schools; and increasingly so, as results are widely published and as a market model of educational provision takes root.

## Japan

The examination system in Japan, while motivating pupils and maintaining standards, would appear to have little, if any, positive effect on curriculum development. Curriculum matters are theoretically quite separate from the examination system, related directly to official Courses of Study and authorised textbooks. Curriculum development is organised on a regular basis, and is controlled by the Ministry (*Monbusho*). The examination system is unlike any other in this study: there are layers of examining, inter-related and yet independent of each other, but all focused on entrance examinations to the next stage. Such entrance examinations to schools and universities have a considerable backwash effect on the curriculum. While curriculum content is specified, the nature of the examinations largely dictate how the curriculum is delivered. The examinations are largely knowledge-based, multiple-choice in format, and are almost always written (rather than oral or practical). Learning is therefore equated with memorisation rather than understanding, and theoretical aspects of knowledge are valued more than practical aspects. By the secondary stage teaching has been largely replaced by lecturing. Given the high stakes of entrance examinations both for individual pupils, and for schools, the use of practice tests is common. As pupils move through the system, testing becomes more and more intense, and frequent. The status of a school is related to the demands of its own entrance standards, which in turn must relate to the success of its pupils on entrance tests to prestigious institutions at the next stage of education. This creates an atmosphere which is antithetical to curriculum development: it can only thrive where the curriculum is relatively common and unchanging.

Japan appears to have taken testing to its most extreme form; to the extent that it is difficult to envisage examination reform, especially since control over examinations is so diffuse. A national standards body which defined benchmarks in terms of descriptive criteria might have little effect in a system in which selection is the prime purpose of examinations. And yet it would appear necessary to lower the "temperature" of competition and the need for cram schools. As in Scotland, the examination culture (though of a different form) is deep-rooted. In Scotland reform has been possible because of the consultative frameworks, the generally consensual approach to, and centralised control of, curriculum and examinations. In Japan only one of these four conditions applies.

## Scotland

In Scotland the Scottish Office Education Department (SOED) has ultimate control over major curriculum initiatives and examination policy. However the Scottish Consultative Council on the Curriculum (SCCC), the Scottish Examination Board (SEB) and the Scottish Vocational Education Council (SCOTVEC) have considerable influence in such matters. The last 15 years have been marked by curriculum reform at every stage of schooling; and in each case assessment has been an inter-related factor in the planning. It has also been a period of increased central specification of the curriculum. Teachers however retain freedom regarding choice of textbooks. Although this could be described as an assessment-driven mentality, there are counter-weights to this arrangement. Firstly there is a highly trained and well-respected teaching profession; secondly, a generally consultative and Consensual approach to change which operates within the broad educational community; thirdly, cooperation which exists between the bodies responsible for curriculum development and examinations, and lastly, a professional role for class teachers in the assessment arrangements. However, these years have been somewhat fraught for teachers and issues of workload have surfaced time and again.

Firstly the middle years of secondary schooling were reformed by the introduction of Standard Grade. The fore-runner to Standard Grade, the Ordinary Grade, was aimed at the top 30 % of the cohort, and thus tended to dominate the style of curriculum in the secondary schools. Despite a well-trained teaching profession and access to in-service training, teaching tended towards the academic. Standard Grade brought in national certification for all, and by assessing such aspects as oral work, investigating, problem-solving and practical skills, it proved to have a profound and generally positive, effect on curriculum development. Its success depended on internal

assessment of significant areas of the curriculum. However, while it had been envisaged as a method of loosening curriculum specification and giving teachers more freedom in this area, in reality it has constrained curriculum freedom.

Attention then turned to the post-compulsory stage of education, particularly to further, non-advanced, education. A wide range of vocational qualifications were introduced by SCOTVEC through a modularised assessment system. This system, which was to be wholly internal to the school or college, put the emphasis on validity. The overall validity of this curriculum development has also been enhanced through vocational competences being determined by industry. The curriculum was described through the assessment system - not an examination system as defined in chapter 1 - and this innovation was noted for the speed at which it was introduced. This speed was achieved largely through by-passing normal consultative processes and public debate.

In the late 1980s it was the turn of the primary sector. However, while the teaching profession, and parents, were positively disposed to curriculum development closely aligned to assessment reform for older pupils, and would tolerate a degree of lack of consultation where speed of development was seen as essential, this close alignment of curricular reform and testing was rejected for primary schooling. The eventual temporary non-cooperation with the national testing initiative was also related to the fact that the approach was one of compulsion rather than consensus. The curriculum reforms were accepted as "stand alone" and teachers are currently attempting to develop the primary curriculum to match the attainment targets of the national guidelines. National testing is now less rigid, not stage-related as originally planned: teachers use the tests merely to confirm their on-going assessment of each pupil.

The current concern is with the curriculum of the post-compulsory school pupil. No longer do the final two year-groups in secondary schools contain a fairly homogeneous group of pupils aiming for academic qualifications. That the Higher Grade is not a suitable target for all pupils, and encourages teaching to the test, is accepted. Investigative, problem-solving and practical approaches take time, and have therefore not generally been possible. The high stakes nature of the Higher Grade for individual pupils, and increasingly for schools as results are made public, also mitigates against innovation. A Scottish Office pronouncement on the future shape of the curriculum and examination system at this stage is currently awaited: Scottish teachers are braced for yet more curricular and examination change.

### **The USA**

In the USA, for many years, decisions regarding curriculum, and hence curriculum development have tended to be subservient to decisions about assessment. This pattern was fairly consistent despite the relative autonomy enjoyed in the field of education by individual states. National patterns have emerged, and indeed what could be termed a *de facto* national curriculum exists to a considerable extent. Nationally-normed achievement tests have played a part in this development.

Assessment has been dominated by achievement testing, generally by commercial tests, nationally-normed and frequently state-mandated. These subject-based tests are generally of a multiple-choice format and test mainly knowledge and understanding. While other types of test are also important, such as locally-developed criterion-referenced tests and aptitude tests such as the SAT, achievement testing of this form is predominant, and has become high stakes. The stakes have increased throughout the 1980s and 1990s, both for individual students - in relation to access to courses - and for schools, in relation to such aspects as competition between them for able students. Given such high stakes, the use of these tests has had negative effects on both the curriculum and curriculum development. Evidence has emerged of a narrowed curriculum - due to teaching to the test - of over-zealous test-preparation techniques and of cheating.

There is now a reaction away from such high reliability, low validity tests towards more "authentic assessment". The arguments in favour of such a change are powerful: test validity is high as such assessments are more intimately connected to curriculum; and in terms of teaching and learning strategies, they are a potent instigator of curricular change. Because of this, "authentic assessment" requires a more professional, participative role for class teachers in assessment and associated curriculum development. It allows assessment of - and therefore encourages development of - process-based learning and problem-solving approaches. However, issues of reliability still have to be resolved.

It would seem that a National Education Standards and Improvement Council is about to emerge. While states will be unlikely to give up control of curriculum development or examinations, they could well benefit from a national body which sets broad criteria in relation to curriculum content, performance and delivery standards. Such a framework might reduce what would appear to be a national obsession about falling standards by providing clear benchmarks. It might also release more teachers from an assessment yoke and allow space for more curriculum innovation. However, it seems likely that such performance standards may be built into state-wide multiple-choice achievement testing. In some states the performance standards may underpin "authentic assessments", and in others a mix of assessment methods might emerge.

### **Zimbabwe**

In Zimbabwe the curriculum and examinations are planned and controlled centrally by the Ministry of Education and Culture. Curriculum development is undertaken by a branch of the Ministry, the Curriculum Development Unit (CDU). Before textbooks can be published they have to be approved by the CDU.

Since Independence there have been significant educational reforms in the area of both curriculum and examinations (for example open access to examinations), but commentators note that despite quite radical reforms, the curriculum remains largely academic. One of the main reasons for this is the high stakes nature of the University of Cambridge Local Examinations Syndicate (UCLES) O Level examination. The O Level, although now localised to a degree, is still largely controlled from England. The policy of open access means very high failure rates, and an inappropriate curriculum for the majority of those staying on at school. It also has a backwash effect on the early stage of secondary schooling, which is looked on as a preparation for the O level. The Zimbabwe Junior Certificate (the JC), taken 2 years earlier, is therefore used partly as an allocative tool, looking ahead to the O level. Given that these examinations are taken in the medium of English, English is also the language of testing and instruction in the upper years of primary education. While there are undoubted benefits in having a second language at this stage of education there are also drawbacks, particularly for slow learners.

The high stakes nature of the O Level means that teachers have to concentrate their efforts on the examined curriculum, and, within any subject this leads to a narrowing of the curriculum and teaching to the test. In terms of types of knowledge, the emphasis tends to be on the academic theoretical aspects rather than on practical knowledge and skills. This fits in with a pedagogy which relies on rote learning rather than investigative or problem-solving approaches. In this way the examination system could be described as hindering curriculum development; of maintaining the status quo.

Beyond the O Level stage, pupils can stay on for a further two years and attempt A Levels. These examinations are almost entirely controlled from England. The curriculum at this stage, in all but African language, is as yet non-localised.

In an economic climate of high unemployment, the stakes attaching to a high status examination tend to rise: it is difficult to envisage reform of the O Level, and yet it would appear that such reform is necessary.



## CONCLUSIONS

Chapter 1 hypothesised that examination systems can have both positive and negative effects on curriculum development. It attempted to draw out some conditions which might affect the nature of the relationship: conditions such as the quality of the curriculum development and of the examination; the degree of articulation between the curriculum development and the examination; the distribution of influence between bodies responsible for curriculum and examinations; the "stakes" of the examination for the pupil and the school; and issues relating to teacher consultation, workload and motivation.

It also suggested that the impact of an examination on curriculum development could take various forms, such as reinforcing or inhibiting curricular change; speeding up or slowing down curricular change; clarifying curricular change in relation to standards expected; and providing evaluative information on such change. It could also change the status of individual subjects or types of knowledge.

The intervening chapters, focusing in turn on the education systems of 7 quite different countries, would seem to support the initial hypotheses. If a curriculum development is perceived as intrinsically worthwhile (such as the move to "flexibilisation" of the curriculum in Colombia), and the examination is technically acceptable, the following factors emerge as having important positive and negative effects on the implementation of that curriculum development:

- the match or articulation of the examination with the curriculum development;
- the nature of the relationship of the bodies responsible for curriculum development and examinations;
- the level of teacher consultation in policy-making;
- the degree of professional involvement of teachers in the processes of curriculum development and examinations;
- the availability of effective in-service training;
- the "stakes" of the examination for pupils;
- the "stakes" of the examination for schools.

Each of these factors is worthy of more detailed consideration.

### THE MATCH OR ARTICULATION OF THE EXAMINATION WITH THE CURRICULUM DEVELOPMENT

If well-matched to the curriculum development, *an examination can be a means of ensuring that the new courses are introduced or the new subject matter is taught and that the innovation takes place as planned.* This incentive to curricular change can work at all levels: for example, in France, the diversification of the *bac* ensured the introduction of technological courses in the *lycees* and the diversification of the curriculum. In Scotland the introduction of Standard Grade ensured that such aspects as investigating, problem-solving and practical and oral skills were given the attention they deserved and had never been given. Again in Scotland, the introduction of SCOTVEC modules gave a necessary vocational impulse to Scottish education, while in France this was also achieved largely by the introduction of certificated courses (the CAP and BEP). The introduction of such assessment systems tended to *speed the delivery of the curricular innovations.*

An examination well-matched to a new set of curricular arrangements can also serve the function of *clarifying, and indeed maintaining, standards.* This is a particularly useful function when

teachers have not all received adequate pre-service training. The current innovations in Egyptian education in relation to national testing at grades 3 and 5 should serve this purpose.

Examinations aligned to curricular innovation or reform also have the potential *to provide evaluative information about the reform* and about outputs in general. *In some cases the examination or testing creates a climate for pedagogic innovation.* In the USA, for example, the introduction of "authentic assessment" has encouraged new teaching and learning strategies, and in France, the evaluative feedback produced by national testing has encouraged an approach to teaching which involves a greater recognition of individual differences and the consequent need for a more differentiated approach.

If, on the other hand, curricula r development and examinations are poorly matched *the curricular innovation can be slowed down, distorted or subverted altogether.* This is most likely to happen if the examination is high stakes for pupils or schools. In the USA, for example, pupils in a diversity of states, each with its own curriculum, or indeed district curricula, may sit an identical commercially-produced achievement test. In some cases, the alignment of the test to the curriculum is poor. In a high stakes situation teachers teach to the test rather than to the curriculum.

### **THE NATURE OF THE RELATIONSHIP OF THE BODIES RESPONSIBLE FOR CURRICULUM DEVELOPMENT AND EXAMINATIONS**

Several aspects which relate in a positive way to the effect of examinations on curriculum development were outlined in the preceding chapters. Firstly, that such a relationship needs to exist seems obvious. However, in Japan the relationship which exists between the body in charge of the curriculum (*Monbusho*) and the vast array of institutions in charge of their own high stakes entrance examinations does not extend to cover examinations. In France, Colombia, Egypt, Zimbabwe and Scotland these relationships occur at national level. In the USA this relationship where it exists, as yet operates at state level, rather than at federal (national) level. *The existence of such a relationship, whether at national level or not, would seem to be an important factor if coordination of the system is to be possible, and undue examination pressure on pupils avoided.*

*The balance in the relationship* is also an important factor: whether or not the bodies come together as equal partners to plan developments, or whether one or other is in a more powerful position. In Scotland, for example, the relationship between the curriculum body (SCCC) and the examination body (the SEB) at the time when Standard Grade was being developed was a marriage of equal partners. *The channels of communication between these bodies also need to be well-developed, and the functions of the partners need to be well-defined and understood.* In Egypt? for example, there appeared to be some overlap in function between the various bodies which have responsibility for curriculum and examinations. This is counter-productive, and can lead to unnecessary rivalry.

### **THE LEVEL OF TEACHER CONSULTATION IN POLICY-MAKING**

In countries such as France and Scotland, developments which have been brought in with a degree of *teacher consultation* have tended to win more support and positive attitudes from teachers, and these innovations have tended to retain the essential ingredients of the initial intentions. This has been the case for such developments as national testing in France and Standard Grade developments in Scotland. It is probably most required where one body has complete control over both curriculum and examinations. Where such consultative machinery exists but is ignored, attitudes tend to be negative. Primary testing in Scotland, in its initial form, exemplifies this situation. Most curriculum innovations require a well-motivated teaching force to undertake additional workloads, so it would seem counter-productive to alienate the group of people on whom the success of the innovation depends. The term "ownership" is frequently used in relation to the group which has to effect the changes: *true consultation is an*

*important aspect of such ownership.* However, it is probably the case that such consultation would be considered a luxury in developing countries faced with more immediate problems of educational provision.

### **THE DEGREE OF PROFESSIONAL INVOLVEMENT OF TEACHERS IN THE PROCESSES OF CURRICULUM DEVELOPMENT AND EXAMINATIONS**

*There are many aspects of curriculum development and examinations which are probably best done by practising teachers.* This could, for example, cover such aspects as creating teaching materials, crafting examination questions, marking scripts and interpreting test results. When such tasks are taken out of the hands of teachers and put into the hands of an elite of "experts", there is a danger of de-professionalising the teacher, of treating him or her as merely an operative. Where the skill levels of the teaching force in such areas are lacking, the longer-term aim of training teachers to perform such tasks would seem preferable to bringing in "experts" who have no real depth of classroom experience on which to draw, and perhaps, no real commitment to the curriculum development. However there is a negative side to this approach: if teachers get so over-burdened with the work associated with a curricular development there is a danger that the development will not be implemented effectively. The Scottish Standard Grade reform, for example, faltered quite seriously on this issue. Teachers were generally happy to be involved in development groups, in devising new approaches to teaching and in school-based assessment, but the *workload* became problematic, and a curriculum-support service had to be quickly installed.

### **THE AVAILABILITY OF EFFECTIVE IN-SERVICE TRAINING**

To ensure an innovation or reform is implemented as intended it is beneficial if it can be accompanied by *in-service training*. All 7 countries have systems of in-service training, some involving distance-learning. Frequently they were criticised by survey respondents for not addressing issues relating to assessment. Colombian respondents, however were more positive regarding the value of in-service training; there, such training is done in small groups of 10-15 teachers, under supervision.

### **THE "STAKES" OF THE EXAMINATION FOR PUPILS**

Where a particular innovation is linked to a high stakes examination, such as the French *bac*, the *examination can have the effect of hastening the implementation of the curricular innovation*. In most of the 7 countries pupils do not face a high stakes examination until they are either about to leave school or enter higher education. The French brevet and the Scottish Standard Grade examinations, for example, serve various purposes (such as graduation from school and guidance on the next stage) but are not "make or break" examinations for most pupils. However, the examinations which follow, namely the French *bac* and the Scottish Higher Grade, are very high stakes for pupils.

In countries such as Zimbabwe and Egypt where formally promotion to the next stage of schooling was accompanied by an examination, such promotion now tends to be virtually automatic, and the examination stakes have consequently lowered.

In Japan, however, a majority of pupils face two sets of high stakes entrance examinations; one to enter upper secondary school and one to enter higher education. The purpose of these examinations is not related to the needs and development of the individual, but to competition between pupils and schools.

Each country has at least one examination which is high stakes for pupils. *Such high stakes examinations have, in every case, the power to resist curricular reform. They tend to encourage*

teaching to the test, to stress theoretical aspects of the curriculum more than practical or process-based, learning. They have a tendency to encourage out-dated teaching methodologies such as rote-learning and memorisation rather than engaging pupils in a more analytical and problem-solving approach. Such is their importance that they frequently have a back cash effect on the curriculum at the lower stages. This was noted, for example, in Zimbabwe and France. Cheating was also reported as a problem in, for example, Egypt, and to a lesser extent, the USA. The status of individual subjects can also be changed in high stakes examinations: in the French bac, for example, the mathematics/physics series has the highest status and thus pupils take this option whether or not they find these subjects intrinsically interesting.

## THE "STAKES" OF TIME EXAMINATION FOR SCHOOLS

In Colombia, Japan, France, Scotland and the USA, publication of results of high stakes examinations by school, and generally also by region or district, has become a fairly recent fact of life. In all cases these results are raw results, and in most cases, the publication is associated with a move to a more "market-oriented" model of education. While such information can encourage schools to look carefully at the curriculum and examination preparation techniques, it can also encourage simplistic interpretation of what is essentially a very complex situation affected by factors outwith the control of teachers.

*Examination systems can have a powerful impact on curriculum development, and while the potential for positive effects can be impressive, the overall impact as experienced by pupils is, more often than not, tilted towards negative effects. This is especially the case if the examination is high stakes for pupils and schools. Nonetheless the prime function of examination systems is to measure attainment and in all 7 countries the fairness of examinations in allocating pupils to courses and their value in maintaining standards are powerful reasons for their retention. The challenge for those involved in developing and administering examination systems is to enhance examination validity by making them more responsive to both existing and developing curricula.*

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## DIVISION OF HIGHER EDUCATION AND RESEARCH

### **Section of Educational Innovation, Technology and Research ( ED/HEP/ITR )**

#### **International studies on the impact of examination systems on curriculum development**

The Approved Programme and Budget for 1992-1993 (26 C/5) foresees, within the framework of its sub-programme 1. 3.3. Educational innovation, technologies, research and information ( para 01335) that "international studies on examination systems and curriculum development will be conducted in co-operation with specialized NGOs.

The activity has been proposed in response to the increasing interest in the both negative and positive impact that an examination system may have on the curriculum, understood here in its wider meaning from policies to teaching-learning situations.

- a) The examination system is claimed to have a negative impact on curriculum development as it influences and/or pre-determines not only the policies and content but also the methods and techniques teacher training and so on. Therefore, educational innovation may be hampered by the demands of the examination system.

The objective of the studies is to examine this impact on selected curriculum elements at the primary and/or secondary level within the framework of selected education systems in various regions of the world.

The extent to which the examination system at the secondary level influences curriculum development at the primary level and vice versa may also be part of the studies.

- b) the examination system is also claimed to have a positive impact on curriculum development as it may provide an important intervention point for curriculum reform.

The objective of the studies is to examine possible patterns and procedures through which the curriculum is changed by reforming the examination system.

As above, the positive impact will be examined in terms of selected curriculum elements at the primary and/or secondary level within the framework of selected education systems in various regions of the world.

The extent to which a reform of an examination system at the primary level influences curriculum development at the secondary level (or vice versa) may also be part of the studies.

The studies should include a synthesis of the findings accompanied by a selected list of reading material.

## SELECTED WORLD EDUCATION INDICATORS

(with trend arrows † ‡)

Table 1a Demographic and Economic Features

Country	Demographic Features					Economic Features		
	Population in Millions (1993)	Average Annual Population Growth % ('80-'93)	Population Density /km <sup>2</sup> ('93)	Youthfulness of Population* % (1993)	Urban Population % 1993	GNP/Capita US \$ (1990)	GNP Average Annual Growth % ('80-'90)	% GNP Spent on Education 1990
Colombia	34	1.9% ‡	30	55% ‡	70%	1240	1.1%	2.9% †
Egypt	56	2.5% ‡	56	68% ‡	44%	600	2.1%	6.7% †
France	57	0.5%	104	30% ‡	73%	19480	1.7%	5.4% †
Japan	125	0.5%	331	24% ‡	77%	25430	3.5%	4.7% ‡
Scotland	5	0.2%	65	28%	89% (UK)	16070 (UK)	2.5% (UK)	4.7% ‡ (UK)
USA	258	1.0%	28	33%	75%	21700	2.2%	5.3% ‡
Zimbabwe	11	3.3% †	28	84% ‡	29%	640	-0.8%	10.6% †

Country	Adult Literacy				Daily Newspapers/ 1000 Population 1980	(Public) Library books/1000 Population	Duration  Years of Compulsory Education	Participation rates in education		
	% Total Adults Illiterate 1980	% Total Female Illiterate 1980	% Change in Literacy					Enrolment Rates: Net/Gross (1980)*		
			'70-80'	'80-89'				Pre-Primary	Primary	Secondary
Colombia	13%	14%	+2.6%	+1.7%	82	NA	8	NA / 42% ↑	74% / 111% ↓	28% / 35% ↓
Egypt	37%	55%	+37%	+11.6%	57	170	8	NA / 7% ↑	NA / 101% ↓	NA / 81% ↓
France	-	-	-	-	208	827	10	NA / 88% ↑	100% / 108% ↓	82% / 88% ↓
Japan	-	-	-	-	887	587	8	NA / 48% ↓	100% / 101%	97% / 87% ↓
Scotland	-	-	-	-	388 (UK)	2733 (UK)	11	NA / 50% ↓ (UK)	88% / 105% ↓ (UK)	78% / 82% ↓ (UK)
USA	-	-	-	-	245	1870	11	NA / 81% ↓	88% / 104% ↑	80% / 50%
Zimbabwe	26%	40%	+24%	+11.4%	21	108	8	NA / NA	100% / 118% ↓	NA / 50%

\* Enrolment vs. % potential enrolment, including post-compulsory stages. Net = as % of the appropriate age cohort. Gross = those enrolled at that stage as % of appropriate age cohort.

**Table 1c Enrolment and Pupil-Teacher Ratios**

Country	Higher Education Gross* Enrolment Ratio % (1990)	Pupil-Teacher Ratios 1990		Private School Enrolment (as % of Total Enrolment 1990)		
		Primary	Secondary	Pre-Primary	Primary	Secondary
Colombia	14% ↑	30	20	53%	15%	39%
Egypt	18%	24 ↓	18 ↓	87%	NA	11% (1980)
France	40% ↑	16 ↓	13	12%	15%	21%
Japan	29%	21 ↓	17	77%	1%	15%
Scotland	29% ↑ (UK)	20	13	6% (UK)	3%	6%
USA	72% ↑	22	13	37%	12%	9%
Zimbabwe	5%	36 ↓	28 ↑	NA	87%	70%

\* Gross enrolment ratio = total enrolment in Higher Education, regardless of age, as % of the population in the 5-year age cohort following secondary school leaving age.



**A COMPARATIVE STUDY OF THE EFFECT OF PUBLIC EXAMINATIONS  
ON THE CURRICULUM**

**A STUDY BY THE SCOTTISH EXAMINATION BOARD FOR UNESCO**

**QUESTIONNAIRE (English version for reference only)**

**JAPAN**

The purpose of this questionnaire is, for a sample of quite different countries, to elicit a range of judgements on the effect which tests/examinations have on the curriculum. You are asked to respond, in confidence to the questions in relation to educational practice in Japan. It would be appreciated if this questionnaire could be returned by 31 July.

*Throughout this questionnaire, the questions on assessment refer only to school tests of a formal, generally public nature: they do not refer to informal, classroom assessments of a formative nature. (Public tests: end-of-term tests, commercial tests, intelligence tests and entrance tests.)*

*Which of the following groups best describes your position in education?*

- |  |  |  |   |
|--|--|--|---|
| <input type="checkbox"/> <i>State elementary</i>           | <input type="checkbox"/> <i>Private elementary</i>       | <input type="checkbox"/> <i>State junior high</i>                | <input type="checkbox"/> <i>Private junior high</i> |
| <input type="checkbox"/> <i>State senior high</i>          | <input type="checkbox"/> <i>Private senior high</i>      | <input type="checkbox"/> <i>University or Research Institute</i> |   |
| <input type="checkbox"/> <i>Teacher Training Institute</i> | <input type="checkbox"/> <i>Administrative Institute</i> | <input type="checkbox"/> <i>Others</i>                           |   |

**1 THE CURRICULUM**

- 1 1** To what extent are the authorised textbooks and teachers' manuals considered beneficial by teachers?

- |   |                       |
|---|-----------------------|
| <input style="width: 100%;" type="text"/> | very beneficial       |
| <input style="width: 100%;" type="text"/> | somewhat beneficial   |
| <input style="width: 100%;" type="text"/> | rather a hindrance    |
| <input style="width: 100%;" type="text"/> | very much a hindrance |

1 2 The reports (1987) of the National Council on Educational Reform suggested that there was a need to put more emphasis on individual differences. To what extent do you consider the recent curricular revisions have catered for individual differences among pupils? In relation to individual differences, the revised curricula give:

- considerable attention
- adequate attention
- scant attention
- no attention

**2 ORGANISATION OF TEACHING**

2 1 For subject areas (or stages of education) with which you are familiar, please tick boxes below to show those methods which best describe **typical teaching methods** in Japan.

	Elementary Grade 5 and 6	Secondary				
		Japanese	Foreign Language	Natural Science	Social Science	Technical
lecturing						
rote learning/memorisation						
individual learning						
group work						
lessons based on set texts						
experimental/hands-on						
discussion lessons						
other eg _____						

2 2 Would a pupil moving between schools at any stage of schooling be likely to find the teaching method very similar or not?

- Yes  No

**3 TESTING**

3 1 *In your experience, how frequently would a pupil take a formal test in any subject (eg a standardised achievement test) at the stages of schooling shown in the table below? Please use ticks where*

	<i>&lt; 1 per year</i>	<i>1 -2</i>	<i>3 -4</i>	<i>&gt; 4 per year</i>
<i>Elementary school</i>				
<i>Junior high school</i>				
<i>Senior high school</i>				

3 *For the next four questions please use the following code: 4 = crucial/, 3 = very important; 2 = quite important; 1 = not important.*

3 2 1 For state schools how important are the following assessments to a Japanese pupil at junior high school wishing to be admitted to a state senior high school?

- On-going ranking in achievement tests:
- Recommendation from school
- Commercial tests
- Local Board of Education scholastic achievement test for entrance to next stage of schooling
- Entrance tests to particular senior high school(s)

3 2 2 For private schools how important are the following assessments to a Japanese pupil at junior high school wishing to be admitted to a private senior high

- On-going ranking in achievement tests
- Recommendation from school
- Commercial tests
- Local Board of Education scholastic achievement test for entrance to next stage of schooling
- Entrance tests to particular senior high school(s)

3 3 1 How important are the following assessments to a Japanese pupil at senior high school wishing to go to National university?

- On-going ranking in achievement tests
- Commercial tests
- Common test (Daigaku-nyushi-senta-shiken)
- Recommendation from school
- Other university entrance examinations, as determined by each institution

3 3 2 How important are the following assessments to a Japanese pupil at senior high school wishing to go to a private university?

- On-going ranking in achievement tests
- Commercial tests
- Common test (Daigaku-nyushi-senta-shiken)
- Recommendation from school
- Other university entrance examinations, as determined by each institution

3 4 What types of assessment instruments are commonly used in the following tests? Please use ticks where appropriate.

**Senior High  
Achievement tests**

**University entrance  
examinations**

- |                          |   |                          |
|--------------------------|---|--------------------------|
| <input type="checkbox"/> | Test paper - essay type responses                 | <input type="checkbox"/> |
| <input type="checkbox"/> | Test paper - shorter open-ended responses         | <input type="checkbox"/> |
| <input type="checkbox"/> | Test paper- short-answer responses                | <input type="checkbox"/> |
| <input type="checkbox"/> | Test paper- objective questions (eg multi-choice) | <input type="checkbox"/> |
| <input type="checkbox"/> | Folio of work produced in class                   | <input type="checkbox"/> |
| <input type="checkbox"/> | investigation/project (with report)               | <input type="checkbox"/> |
| <input type="checkbox"/> | Oral assessment                                   | <input type="checkbox"/> |
| <input type="checkbox"/> | <i>Hands-on/performance assessment</i>            | <input type="checkbox"/> |
| <input type="checkbox"/> | <i>Other</i> _____                                | <input type="checkbox"/> |

3 5 1 In terms of policy and resources relating to testing, what issues are top priority?

(eg ensuring fair selection;improving educational standards- awarding personal effort; providing for the needs of the economy; reforming the curriculum or teaching methods; evaluating the educational system.)

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3 5 2 How acceptable do you judge these priorities to be?

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#### 4 EFFECT OF EXAMINATIONS ON THE CURRICULUM

4 1 Which test would you consider most important for senior high school pupils in Japan?

4 2 In relation to the test you have identified in 4 1 above, use the following code {4 = very much, 3 = a considerable amount, 2 = a small amount, 1 = not at all to show the extent to which it

- tests more than the curriculum taught in schools;
- inadequately samples the curriculum taught in schools;
- controls curriculum content in classroom,
- leads to greater value being placed on theoretical rather than
- leads to greater value being placed on memorisation of facts rather than on understanding;
- clarifies the curriculum, and the standard expected;
- improves the method of teaching/learning;
- has a detrimental effect on the method of teaching/learning;
- encourages the use of practice tests;
- benefits the pupil/teacher relationship;
- damages the pupil/teacher relationship;
- helps raise standards
- encourages innovation in teaching methods (eg discussion skills);
- hinders innovation in teaching methods.

4 3 *Is the test you have identified valid (ie appropriate for the pupils who take it, and does it adequately test the taught curriculum)?*

Yes     No     I do not know

4 4 *What effect, if any, does the publication in books and magazines of information relating to university entrance tests have on*

*4 4 1 curriculum content taught?*

very much     quite a lot     not very much     not at all/

*4 4 2 teaching methods used?*

very much     quite a lot     not very much     not at all/

4 5 *Which of the following problems associated with testing do you consider a problem in Japan? Please tick where appropriate.*

"high stakes" nature of testing

inappropriate interpretation of results

curricular alignment of tests

effect on method of teaching/learning

technical adequacy of tests

over-zealous preparation for tests

alienation/lack of motivation of low achievers

degree of competition between pupils

degree of competition between schools

increase in test-driven curricula

political use of test scores

4 6 *Overall, to what extent would you judge public testing to have a good or bad effect on the school curriculum?*

very good effect     good effect     neither good nor bad effect

bad effect     very bad effect

4 7 1 To what extent do you consider the present system of public testing to be meeting the needs of the individual pupil?

very adequately  adequately  not very well  
 not at all

4 7 2 society?

very adequately  adequate/y  not very well  
 not at all

4 8 Are you aware of pressures within society for change to the public assessment system?

Yes  No

4 8 1 If so, from what groups in society?

pupils  parents  teachers  universities  
 employers  government  others( )

## 5 TEACHER TRAINING IN CURRICULUM AND ASSESSMENT

5 1 Do pre-service teacher training courses cover assessment issues?

Yes  No  I do not know

5 2 Does in-service teacher training cover assessment issues?

Yes  No  I do not know

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE  
PLEASE FEEL FREE TO ADD ANY FURTHER COMMENT.

The questionnaire should be returned either to the person who gave it to you, or directly to

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