

THEMATIC PROBE. Primary Education: an International Perspective

Country Description: Japan

This country description was compiled from the *INCA* Archive (www.inca.org.uk). Additional comments were received from Mr Ryo Watanabe, Director of the Department for International Research and Cooperation of the National Institute for Educational Policy Research (NIER) in Japan.

1. Organisation of school phases=

How are the early years and primary phases organised? (3-5yrs? 5-11yrs?)

Education in Japan is compulsory for nine years, for children from age six to 15 years.

Kindergartens (*yochien*) provide non-compulsory pre-school education for children from the ages of three to six years. There are also nurseries (*hoikuen*) which accept children from the age of six months to compulsory school age (six years).

There are six years of compulsory primary education provided in the elementary school (*shogakko*); children aged from six to 12 years. State-funded elementary schools are generally co-educational and there are no separate schools for different groups or abilities of children.

Elementary school education starts in the April after a child's sixth birthday (the school year runs from the beginning of April to the end of March).

What are the points of transfer between phases?

There are four phases in the educational structure in Japan:

- Pre-compulsory kindergarten education for children aged three to six (or nursery education for babies to six-year-olds).
- Compulsory elementary school, children aged six to 12.
- Compulsory junior high school education, students aged 12 to 15 years.
- Post-compulsory upper secondary education (senior high school or similar), students aged 15+ to 18+.

Pre-compulsory kindergarten or day nursery	Compulsory primary (elementary school)	Compulsory lower secondary (junior high school)
3- to 6-year-olds or 0- to 6-year-olds respectively	6- to 12-year-olds	12- to 15-year-olds

2. Locus of control

What degree of control over curriculum content and other aspects of primary schools exists at the national, regional, local and/or school level?

There are essentially three tiers of government with respect to education in Japan - national, prefectural and municipal.

National

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) formulates national education policy, administers Japan's public schools, prescribes curricula (through courses of study, see 'Curricula' below) and establishes national educational standards, drawing on the advice of various standing advisory committees. MEXT also sets salary scales for teaching staff (although it is the responsibility of local boards of education to pay staff); establishes supervisory services; approves textbooks; and provides guidance and financial assistance to prefectures and municipalities and their local boards of education.

Prefectures and boards of education

Prefectures, which are the upper tier of local government, exercise their educational responsibilities through a board of education, appointed by the prefectural governor. The prefectural boards of education consist of five members each, appointed by the governor, with the consent of the prefectural assembly. They hold office for four years. The prefectural superintendent of education is appointed by the board and, until recently (see below), this appointment required the approval of the Minister of Education, Culture, Sports, Science and Technology.

The main responsibilities of (prefectural) boards of education are:

- to operate schools established by the prefecture, mainly post-compulsory senior high schools;
- to license teachers and make appointments to elementary and secondary schools; and
- to provide advice and financial assistance to municipalities.

Municipalities and local boards of education

Municipalities, the lower tier of local government, have educational responsibilities which are again exercised through boards of education, appointed by the mayor, and which include:

- to operate elementary and junior high schools (that is, compulsory schools);
- to adopt textbooks from the MEXT-approved list; and
- to make recommendations to prefectural boards on the appointment and dismissal of teachers.

Municipal boards of education in cities, towns and villages consist of three or five members, who hold office for four years. The superintendent of a municipal board of

education is appointed from among the members of the board, with the approval of the prefectural board of education.

Curriculum

In order to ensure an "optimum national level of learning while at the same time adhering to the principle of equal educational opportunity", the Ministry of Education, Culture, Sports, Science and Technology (MEXT) lays down national guidelines for curricula in the form of detailed courses of study across the four major phases (pre-compulsory kindergarten, compulsory elementary [primary] education, compulsory lower secondary junior high school, and post-compulsory senior high school). Courses of study define the number of days and hours of instructional activity, the subject areas to be taught, and the sequencing of instructional topics.

Courses of study are prepared by MEXT in consultation with the Curriculum Council, an advisory body to MEXT; reviewed by the Curriculum Council; and promulgated by the Minister. It is intended that courses of study should ensure equal educational opportunity, by providing all students with a core course of exactly the same content. However, each school is expected to organise its own curriculum/teaching programme in accordance with the course of study, whilst also taking into account circumstances peculiar to the local community and the stage of development and characteristics of the children enrolled. That is, local boards of education have the right to make curriculum changes to suit their particular needs.

Courses of study are widely credited with having had a major role in maintaining nationwide educational standards, but are also criticised as contributing to uniformity and rigidity, as most compulsory level public schools formulate similar programmes. That is, local boards of education rarely seem to make curriculum changes. Because students must pass national entrance examinations for post-compulsory upper secondary education (age 15+), boards seem hesitant to do anything that might prevent a student from performing well in the entrance examination.

Schools are monitored by government inspectors to ensure that the MEXT courses of study are being followed. However, there is no nationally centralised system of school inspections. Supervisors (*Shidoshuji*) visit schools and observe teaching and the school curriculum in practice. They hold discussions with school staff and provide guidance and advice on the curriculum, teaching and school management issues. The visit cycle is determined by the local board of education. Supervisors are professional educational staff, usually with considerable teaching experience in schools. (Mr Ryo Watanabe, National Institute for Educational Policy Research (NIER), Japan.)

Are there any shifts in the distribution of control between these different levels? (Is it possible to assign percentages to each level, to reflect circumstances in each country?)

No specific information is available via the *INCA* Archive. However, Mr Watanabe of the National Institute for Educational Policy Research (NIER) in Japan comments that decentralisation of educational administration has been promoted in recent years, with increasing control of schools and the curriculum (see above) being devolved to the local and school levels. The Minister of Education, Culture, Sports, Science and

Technology no longer approves the appointment of prefectural superintendents of education, for example. This matter is left entirely to the discretion of the prefectural board of education. At school level, a 'school adviser system' has been in existence since April 2000. This provides a mechanism whereby a school principal can reflect the opinions of parents and local residents in school management. With reference to the school curriculum (see above), the Ministry of Education, Culture, Sports, Science and Technology (MEXT) has begun to define educational standards more broadly and flexibly, and has expanded the range of elective courses in the school curriculum. This is with a view to encouraging schools to adapt the curriculum to local need.

At what intervals is the curriculum reviewed? (eg are there established review cycles?)

The first courses of study were compiled in 1947 and have since been revised in 1951, 1958, 1968/69, 1977, 1989 and 1998; an approximately 10-year cycle is emerging. Once courses of study are revised, they are introduced gradually over time over the different phases of education. The courses of study revised in 1998, for example, were introduced in kindergarten (three- to six-year-olds) during the school year April 2000 to March 2001; are being introduced in elementary and junior high schools during the April 2002 - March 2003 school year; and will be introduced in senior high schools (15- to 18-year-olds) from April 2003.

Mr Ryo Watanabe of the National Institute for Educational Policy Research (NIER) comments that future curriculum (course of study) revisions could take place more often if educational circumstances were to change and revisions were felt to be required.

3. Curriculum content

What does the statutory curriculum consist of?

From 1992 until the start of the 2002 school year (April 2002), Japanese elementary schools followed a statutory national curriculum comprising:

- Japanese language (primarily instruction in reading and writing the language in the first four years, with Japanese literature being introduced in the final two years of compulsory elementary school education);
- arithmetic (primarily addition and subtraction in the first two years and multiplication, division, fractions and decimals in the remaining four years);
- social studies (Years 3 to 6, ages eight to 12 years) or life environment studies in Years 1 and 2 (ages six to eight years);
- science in Years 3 to 6 (ages eight to 12) or life environment studies in Years 1 and 2 (ages six to eight years);
- moral education;
- music;
- art: drawing and handicrafts;
- physical education (PE); and
- in Years 5 and 6, home economics.

The new curriculum, finalised in 1998, and which came into effect in elementary schools in April 2002, retains all of the above subjects, but reduces time spent on them, and introduces a new subject 'General Studies' from Year 3 (aged eight onwards).

More than 99 per cent of all elementary schools in Japan are public-sector (national, prefectural or municipal) schools. Where private schools do exist these generally have the same curriculum as public schools, although private schools may include religious education in their curriculum; public schools may not.

Moral education

Although moral education as a subject area is allocated a specific teaching time of one class hour each week, the subject also permeates all aspects of school life. It is compulsory for Japanese children from the age of six and continues throughout their schooling. In addition to being taught as a specific theme, the attitudes and values (*kokoro*) of moral education are emphasised in the learning of all other subjects in Japanese elementary and secondary education, and in various daily activities (called special activities) which children are expected to carry out in school. Children in each class are usually divided into groups of five to six, with each group being responsible for specific duties, such as cleaning the classroom; serving school lunch; preparing the class newspaper; looking after the class animals etc. The groups take turns in taking such responsibilities every week or month. This kind of group arrangement is also made use of in the teaching of individual subjects, such as science and mathematics, where children cooperate with the others within their group and gifted children help slower achievers spontaneously. The members of the groups are not fixed, but change around regularly. Through such arrangements, children learn automatically how to cooperate and help each other; to contribute to the interests of other members and the group itself; to discuss to reach an agreement; and to guess and consider the implicit opinions and feelings of other members.

The four fundamental principles of moral education are:

- to learn self-control;
- to learn to live and communicate with others;
- to learn to respect the environment, nature and beauty: to understand the importance of life; and
- to learn to respect the rules by which people live/society is organised: justice, equality; enjoyment of one's work.

The class teacher is generally responsible for teaching moral education.

***What other aspects of the curriculum/teaching in schools are statutory?
Are time allocations for subjects statutory?***

Moral education - see above.

Homework is regularly set for elementary school children and makes a very significant contribution to the curriculum, particularly in the upper years. Homework

is also generally assigned for all children during the six-week summer vacation (July/August).

Time allocation

The elementary school year consists of at least 35 weeks (34 weeks for the first grade) and one school hour unit is 45 minutes. Courses of study specify the standard number of school hours each year for each subject in compulsory elementary education, as follows.

Standard annual 'teaching hours' (45 minutes) in elementary schools, April 1992-March 2002

Curriculum area and number of teaching hours	Year 1 6-7 yrs	Year 2 7-8 yrs	Year 3 8-9 yrs	Year 4 9-10 yrs	Year 5 10-11 yrs	Year 6 11-12 yrs
Compulsory subjects						
Japanese language	306	315	280	280	210	210
Social studies	-	-	105	105	105	105
Arithmetic/ mathematics	136	175	175	175	175	175
Science	-	-	105	105	105	105
Living experience	102	105	-	-	-	-
Music	68	70	70	70	70	70
Art (drawing and handicrafts)	68	70	70	70	70	70
Home economics	-	-	-	-	70	70
Physical education	102	105	105	105	105	105
Moral education	34	35	35	35	35	35
Special activities	34	35	35	70	70	70
Total	850	910	980	1,015	1,015	1,015

In private schools, part or all of the time for moral education may be replaced by religious education.

Special activities include classroom assemblies and activities, students' councils, students' club activities, school events, student guidance, school lunches, cleaning, volunteer services etc.

Revised curriculum from 1 April 2002: subjects and time allocation

The new curriculum, finalised in 1998, and which came into effect in elementary schools in April 2002, reduces time spent on all subjects and introduces a new subject 'General Studies' from Year 3 (children aged eight onwards).

**Time allocation prescribed by the course of study for elementary schools
(per annum in hours, 1 hour = 60 minutes)**

Grade/Year		1	2	3	4	5	6	
		6	7	8	9	10	11	
Starting age								
Compulsory subjects	Common/Core subjects	Japanese	204	210	176	176	135	131
		Social Studies	-	-	53	64	68	75
		Mathematics	86	116	113	113	113	113
		Science	-	-	53	68	71	71
		Life Environment Studies	77	79	-	-	-	-
		Music	51	53	45	45	38	38
		Art & Handicraft	51	53	45	45	38	38
		Homemaking	-	-	-	-	45	41
		Physical Education	68	68	68	68	68	68
		Total	536	578	552	578	574	574
	Electives							
Total		-	-	-	-	-	-	
Non-subject activities	Moral Education	26	26	26	26	26	26	
	Homeroom activities	26	26	26	26	26	26	
	Period for Integrated Study	-	-	79	79	83	83	
	Total	51	53	131	131	135	135	
Grand total		587	630	683	709	709	709	

Note: The figures are rounded.

The following table illustrates changes in hours allocated to each subject for children in Year 6 (the final year of elementary school education, aged 11-12).

Subject area	Hours per year 1992-2002	Hours per year April 2002 onwards
Japanese	210	175
Social studies	105	100
Mathematics	175	150
Science	105	95
Music	70	60
Art (drawing and handicrafts)	70	50
Home economics	70	55
Physical education	105	90
Moral education	35	35
Special activities	70	
General studies		110

With the introduction of this revised curriculum, schools and teachers have more freedom to determine how class time is allocated to each subject, provided they follow the hours per year detailed above. In other words, they do not have to follow the previous rule of having uniform 45- to 50-minute classes for all subjects.

'Non-academic' subjects such as art, music, gymnastics, cookery and home-making skills occupy more than a third of the time of elementary school children in their first year, and more than 40 per cent of their time in the final year, as education aims to focus on the development of the whole child. These subjects are not considered to be less important than academic subjects and, like academic subjects, are taught systematically, based on the curriculum standards prepared by MEXT. They are not considered to be recreation, but integral parts of the curriculum for whole person education.

Are there statutory timings for the length of the school day/week?

The Japanese school year begins on April 1st and ends on March 31st of the following year. Elementary schools adopt a three-term school year, as follows:

- Term 1: from April to July, followed by the long summer (August) vacation.
- Term 2: September to December (followed by a shorter, winter vacation).
- Term 3: January to March (followed by a short spring vacation).

Traditionally, the five-and-a-half to six-day school week, Monday to Saturday, was the norm. However, in September 1992, a five-day school week was introduced once a month with school not being in session on the second Saturday of each month. In April 1995, a further reduction was introduced, when children were given the fourth Saturday of each month off, in addition. Since 1 April 2002, all publicly-funded elementary schools have operated a five-day week (Monday to Friday). MEXT officials cite the aim of the reduction to the five-day week as being "to encourage children to become more involved in society and their communities and to help them develop social and family skills, as well as foster independence".

What changes have there been to the statutory/non-statutory elements of the curriculum?

April 2002 reforms to elementary school education - reducing the length of the school week from six to five days by cutting out school on Saturdays and, in the new course of study for elementary school education, reducing the workload of children to around 70 per cent of previous levels by reducing the content of the curriculum - aim to create a more flexible educational environment. The new course of study (revised and re-issued in 1998 and introduced in 2002) is intended to give teachers more control over their teaching, foster more child-centred and creative learning through individual instruction and group work, increase the importance of learning a foreign language, and emphasise experiential problem-solving learning activities throughout the school curriculum. The revised course of study for elementary education also calls for education to produce citizens who are creative and considerate and for a "unique system of education, which will foster children's willingness to learn in a relaxed environment".

As a basis for the above reforms, the Curriculum Council was engaged in examining curriculum reform from 1996. It called for a curriculum based on "raising children who can think for themselves" and further recommended that children should receive "education of the heart" and that schools should:

give high respect for each child's individuality and cultivate a sense of justice, sympathy, creativity and encourage full demonstration of a child's ability through his or her life.

Current curriculum reform therefore aims to:

- Help children to cultivate rich humanity, sociality and identity as a Japanese living in the international community.
- Help children to develop the ability to learn and think independently.
- Help children to acquire basic abilities and skills and develop their own individuality by allowing ample scope for educational activities to develop.
- Encourage each school to show ingenuity in developing distinctive educational activities.

Business leaders had also been reinforcing the need for educational reform, and had even blamed the recent economic crisis on the 'outdated' style of education. They felt that education did not adequately prepare children for work in a world that is increasingly competitive, globalised and computerised.

The key aims of the curriculum revisions for elementary phase education are that:

- educational content should be concentrated on the very basics necessary for daily life, such as reading, writing and arithmetic. Children will practice repeatedly until they acquire those skills.

Mr Ryo Watanabe of the National Institute for Educational Policy Research (NIER) comments that, "in the 1960s and 1970s, courses of study quantitatively improved the content of learning. At the same time, however, such revisions invited the criticism that the content of the curriculum (both in terms of the amount of content children

were expected to cover and the level at which they were expected to cover it) was beyond children's capacity. In response to such criticism, the courses of study have been revised continuously since the 1970s, with a view to freeing education from time constraints and reducing the pressures on children, by carefully selecting curriculum content and reducing the number of class hours. Such revisions aimed to improve children's motivation for learning along with their ability to think, evaluate and understand."

What government/other initiatives have been introduced? What has been their impact?

A special scheme has been in operation since 1976 which aims to develop the school curriculum. The 'Designated Schools for Curriculum Development' (DSCD) (*kenkyu-kaihatsu-ko*) scheme involves selected schools which take part in educational pilots. Each DSCD school is permitted to follow its own unique curriculum, which does not follow the provisions of the courses of study, and to develop its own teaching methods. Originally, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) organised all DSCD schemes nationally and selected the schools for inclusion in the programme. Since 2000, boards of education have been responsible for organising their own schemes and then applying to the MEXT for approval of the scheme and of the proposed nominated schools. In this way, it is intended that innovative pilot/experimental schemes will be developed at the local school/community level. The commissioned term for a DSCD scheme/school is usually three years. Costs are met by the MEXT. (Mr Ryo Watanabe, NIER.)

What other trends are emerging in curriculum development? (eg new subjects/areas of learning being introduced)

Life environment studies/living experience

It was the April 1992 course of study for elementary education which introduced 'life environment studies' (LES) (or 'living experience') as a new area of study/subject area for children in Years 1 and 2 of elementary school (aged six to eight years). This aimed to foster in children the qualities of creative thinking; opening up new lines of enquiry; and applying learning to new contexts. In LES, children learn to be concerned with their relationships with society and nature, and to think about themselves and their lives through actual activities and personal experiences in life. LES aims to help children to acquire the skills necessary for life; the basis for their independence.

General studies ('integrated studies')

The revised course of study for the elementary school which began to be introduced in April 2002 introduced the additional subject of 'General Studies' for children in Year 3 onwards (aged eight plus). This integrated subject area aims to allow children to carry out project-type work, field study etc on non-traditional topics such as society, media studies, information technology, international understanding, health and welfare, the environment or other subject areas which are of particular interest to individual children or groups of children.

What other levers may be having an impact on curriculum content? (eg international studies: PIRLS, IEA, PISA, TIMSS)

No information is available via the *INCA* Archive.

Mr Ryo Watanabe of the National Institute for Educational Policy Research (NIER) comments that international studies have had both visible and intangible impacts on education policy, on the curriculum, on educational practice and on research. For example, during the process of the most recent (1998) revision of the courses of study, the results of research, including IEA studies, were taken into consideration, reflected upon and, where relevant, acted upon.

The results of studies (such as TIMSS and PISA) are also utilised to analyse and understand the position of Japanese children's learning, when compared internationally.

4. Organisation of the curriculum

What are the common features of curriculum organisation in the primary phase? (single subjects?, planning subjects as 'topics'?)

Most of the teaching in elementary schools is undertaken by generalist class teachers, sometimes in specialist accommodation, for example, in science. Teaching by specialist subject teachers commences from Year 4 of elementary school (children aged nine years), initially in certain subjects, such as art and craft or music.

The Japanese curriculum is organised along the 'spiral' model, moving from the immediate and concrete to the remote and abstract. Geography in the second year, for example, (studied in social studies), is 'my neighbourhood'. 'My world' does not begin until Year 7 (the first year of compulsory lower secondary junior high school education). Similarly, natural science in the third year may consist of a classroom garden, an insect collection, or a class pet. Subjects tend to be integrated until Year 8, (the second year of compulsory junior high school education), taking on their specialised quality only at the end of junior high school (students aged 15) or at the senior high school (15+) level.

How are subjects labelled?

Subjects in the courses of study are labelled 'subjects', 'subject areas', 'areas of study', or 'curriculum areas'.

What examples are there of 'areas' rather than subjects?

What examples are there of clusters of subjects (eg Humanities, made up of geography and history) being brought together?

Social studies is taught to children in Years 3 to 6, aged eight to 12 years; this includes aspects of history and geography.

In Years 1 and 2 (children aged six to eight), science is taught as 'life environment studies' or 'living experience'.

Home economics includes cookery and home-making. Art includes drawing, painting and handicrafts.

What are the common features of timetabling? (eg weekly lessons in each subject, English and mathematics taught daily)

No information is available via the *INCA* Archive.

5. Assessment

What is the purpose, nature and scale of assessment? (eg end of phase assessment, statutory, published test results, optional, national, local, timed tests, teacher-assessment)

Automatic promotion is the norm in elementary education in Japan, regardless of a child's academic performance. Even the most gifted children are not allowed to skip a year group.

A leaving certificate is presented on completion of elementary school. This certification of completion, which gives access to compulsory lower secondary, junior high school education, for those aged 12+, is granted on the basis of internal teacher assessment.

In-class assessment in elementary schools in Japan is frequent, and most often takes place in Japanese and mathematics, using either teacher-devised or ready-made tests.

Teachers generally engage in three kinds of assessment:

- On-going assessment of day-to-day work.
- Criterion-referenced assessment relating to standards embodied in the course of study and usually arrived at through testing.
- Norm-referenced assessment involving a comparison of the performance of individuals with that of their peers and reported to parents in terms of grades, not orders of merit. (There are no standard procedures laid down nationally as to how such grades should be derived or described.)

In addition, children are encouraged to assess their own work, as well as that of their peers.

Each elementary school is required to enter termly assessments on cumulative guidance records, which are later passed on to junior high schools. These records include criterion-referenced assessments, using a three-point scale, of children's social and personal development and cognitive achievements, as well as attendance details

and records of any special activities undertaken. They also include a norm-referenced grade on a three- or five-point scale for academic achievement.

When children are tested in class in elementary schools, parents are informed of the test results (completed test papers are sent home to them). Written reports, with a grading in each subject, are also sent home to parents of elementary school children every term and meetings regularly held to discuss children's progress. To a large extent, reports contain a distillation of the kinds of assessments entered on cumulative guidance records.

Children who fall behind are not provided with extra programmes after school, but usually attend privately-run after-school courses in 'crammers' or *jukus* (see below) as they are known.

From time to time, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) also conducts a nationwide scholastic achievement survey, either on the basis of census or probability samples. The results of such testing have, in the past, been used in the improvement of curriculum standards. The National Institute for Educational Policy Research (NIER), a research agency under the jurisdiction of MEXT and affiliated to the International Association for the Evaluation of Educational Achievement (IEA), conducts nationwide scholastic achievement surveys in specific subject areas. Such surveys are completed in collaboration with prefectural institutes of educational research, with a view to comparing the scholastic achievement of Japanese children at an international level.

How far is the curriculum driven by assessments? (eg evidence of teacher preparation for testing, 'booster' or 'catch-up' classes in schools)

Access to what are perceived as the best post-compulsory upper secondary schools in Japan is usually governed by overall academic performance and entrance examinations. As a result, there is considerable competition for places. This accounts for much of the extra tuition taken throughout compulsory education in evening classes or 'crammers', known as *jukus* or *yobikos* - special schools for examination preparation.

Jukus are privately-run institutions, competing to attract students. The percentage of students attending *juku* rose from 26.6 in 1976 to 41.7 in 1993. Their existence has recently been recognised by MEXT, although they are not monitored by public authorities.

6. Teaching profession/training

What changes can be identified in initial teacher training programmes?

No information is available via the *INCA* Archive.

Mr Ryo Watanabe of the National Institute for Educational Policy Research (NIER) comments that the 'Education Personnel Certification Law' was revised in 1998, with a view to:

- Ensuring that the initial teacher training curriculum is defined more broadly and flexibly.
- Enhancing professional teaching programmes, by the introduction of seminars and the extension of in-school experience/teaching practice.
- Ensuring that initial teacher education programmes keep up with rapid social change and, as such, reflect the fact that teachers need not only to foster in children a 'zest for living' and a desire to think and learn for themselves; but also that teachers need to respect each child's individuality; and that they need to be able to cope with difficult issues in schools such as bullying and long-term absence.

What kinds of continuing professional development/on-going training are provided?

Prefectural boards of education provide guidance and advice for elementary school teachers. They conduct conferences and workshops for principals (headteachers) and teachers, and publish guides, manuals and handbooks for teachers, based upon the central policy for supervision, and taking into consideration the specific situations of the prefectures/municipalities concerned. Supervisors, who are the principal advisory personnel of prefectural boards of education, are assigned to provide guidance on curriculum, teaching and other professional matters related to school education within their prefecture. Supervisors must be experienced professional educators with a thorough understanding of curriculum, teaching methods and other professional matters related to school education.

Mr Watanabe of the NIER further comments that the 'Special Regulations Concerning Educational Public Service Personnel' require teachers to pursue consistent in-service training, that is, continued professional development is compulsory. Various systematic programmes are in place at the national, prefectural, municipal and school level, with each local board of education defining a minimum required number of hours of continued professional development per year. At the national level, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) holds central workshops for the in-service training of principals, vice-principals, and subject co-ordinators, who then, in turn, play the leading role at the prefectural level. At prefectural level, boards of education are required by law to be responsible for planning and encouraging daily in-service training in local public schools. In addition, prefectural boards conduct periodic in-service training at different stages of a teacher's career, for example, after five, 10 or 20 years' service. Prefectural boards of education also dispatch teachers to universities, research institutes, private firms and other institutions for long-term training in order to improve their professional competence and social character.

To what degree are teachers'/schools' planning subject to scrutiny?

Supervisors from the boards of education have an important role in providing external guidance, advice and assistance on school planning and curriculum organisation. Through visiting schools, supervisors discuss such issues and problems with teachers and provide advice and assistance.

To what degree are teachers using electronic formats to plan?

No information is available via the *INCA* Archive.

Mr Watanabe of the NIER comment that, when teachers produce their teaching plans, student records and other documents, they normally use word processors and other IT equipment. However, the extent to which teachers use standardised electronic formats for this purpose is unknown.

7. Pedagogy

Which teaching approaches are dominant or developing a higher profile, and which are receding? (eg collaborative work, whole-class instruction)

To what degree are teaching approaches focusing on developing thinking skills, creativity and building on children's learning styles?

Teaching methods are determined at the school level. That is, teaching approaches are left to the discretion of individual schools/teachers.

Traditionally classes in Japanese elementary schools are organised by age (year group), are of mixed ability and aim to contain equal ratios of boys and girls. Increasingly, however, some classes are organised by ability/academic level within a given year group. In some DSCD schools (see above), classes are organised by ability without taking into account specific year groups. (Mr Watanabe, NIER.)

In traditional mixed ability classes, teachers generally acknowledge that children learn at different rates but lessons are planned, according to the course of study, so that all children are working towards a common goal. The work is paced so as to be manageable by the majority of the class, that is, teachers often teach 'to the middle', with the result that the faster children spend much time 'off task', while the slower ones may have hardly started an exercise before they are told the correct answer(s) by the teacher. The temptation can then be to wait for the correct answer(s) so that these can be noted down for revision purposes.

The most common organisational strategy is whole-class teaching, with all children working on the same task in the same subject, and a wide range of subjects being taught by the class teacher. Different approaches, such as group study, individual learning and team teaching are, however, also becoming more common. Consequently, children may sometimes work in pairs or small groups. Indeed, teachers often try to address individual problems through 'group learning', that is, by putting children into groups of four to six where, it is hoped, the slow learner will

learn from the group. In addition, team teaching has recently been introduced to some elementary schools. In such instances there is more than one teacher in a class, each taking responsibility for teaching a specific group of children according to that group's level of achievement and understanding. Team teaching is used particularly for subjects such as mathematics, science and English, where individual performance – among a given age group - can vary widely.

The revised, April 2002, course of study for elementary education aims, by giving teachers more control over their teaching, to foster more child-centred and creative learning through problem-solving, individual instruction and group work. This revised course of study calls for education to produce citizens who are creative and considerate and for a "unique system of education, which will foster children's willingness to learn in a relaxed environment".

What is the impact of ICT in teaching practice? (eg use of electronic whiteboards, intranets, managed learning environments/local grids)

No information is available via the *INCA* Archive.

Mr Watanabe of the NIER comments that there has recently been a rapid improvement in the provision of computers and network systems in schools, along with peripherals such as memory-devices, printers, digital cameras, scanners, and large-scale projectors. In addition to this improvement in hardware provision, practical use of information technology by teachers appears to be improving steadily. The 2001 'Survey of Information Education in Schools' revealed, for example, that 49 per cent of all elementary and secondary school teachers (including teachers in special education) felt able to manage and use computers in their instruction.

8. Resourcing

How far are resources to support teaching made available via government/central/local agencies?

How far, and in which subjects, are resources statutory/ recommended/ subsidised? (eg textbooks, courses, lesson plans for teachers, web-based materials)

Textbooks

School textbooks serve as the main instructional material in the classroom and all elementary schools are required to use textbooks which have either been approved or compiled by the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

The contents of the course of study are faithfully reflected in the textbooks and teachers' manuals authorised by MEXT. In addition, MEXT provides a 'commentary' which provides guidance on teaching methods, including questions to be asked and time to be allocated to each aspect of each subject.

Textbooks must be selected from those having MEXT authorisation; this is at the discretion of the local board of education in the case of public schools or, in the case of national and private schools, of the principal (headteacher). Textbooks to be used in public schools are adopted by local boards of education every four years, and are subject to minor revisions in accordance with this four-year cycle. Major revisions take place with the inception of new courses of study.

Authorised textbooks are available in every subject except physical education, and are provided free (by central government) in all compulsory schools (whether publicly- or privately-funded). All children in compulsory education receive a complete set of new textbooks at the beginning of each school year. These books are their own property. This system has been in operation, under the national budget, since 1963, with a view to fulfilling the expectation of the Constitution that "compulsory education shall be free".

The prescribed curriculum (course of study) and the structure provided by government-approved textbooks allow teachers to concentrate their planning on pedagogy rather than on the design of the curriculum or the detailed planning of what activities or content to provide. Although some supplementary materials are used, the textbooks (provided in graded series) determine in very large measure the curriculum as experienced by children, who are taken systematically through the text until its completion at the end of the year.

Other resources

In addition, MEXT produces a *List of Items of Standard Instructional Aids and Equipment*. This defines the items and amounts of standard instructional aids and equipment to be provided by schools for the effective implementation of courses of study, and includes such items as audio-visual aids, maps, wood-working tools and musical instruments. This list is used for reference when municipalities make decisions concerning equipping their schools with instructional aids and equipment, taking into account individual schools' actual conditions and characteristics.

Standards for the provision of instructional aids and equipment specifically for science and mathematics education have also been established. Meters, laboratory instruments, field observation tools, and instruments for experiments, for example, are listed as necessary instructional aids and equipment for science education. Part of the cost for the provision of these aids and equipment is provided by national government.

The national Government also grants financial support for the introduction of micro-computers as instructional equipment.

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