

Part A General (continued)

4.	(a)	(ii)	No. of weeks of teaching per year.	B: 38.5	E: 38	F: 38	G: 32
				H: 38	I: 38	J: 35	L: 40
				N: 38	P:	Q: 32	R: 40
				U: 36	Y: 40	O: 35	

(b)	(i)	When does the school day start/end?	B: 08.00 to 13.00 or 13.30 to 17.30	E: 08.45 to 15.00
			F: 08.00, 09.00 or 10.00 to 12.00, 13.00 or 14.00 ¹	
			G: 08.15 to 13.40	
			H: 08.00 to 12.00–13.00 ²	I: 09.00 to 15.00
			J: 08.45 to 15.15	L: 08.30 to 15.00
			N: 08.30 to 14.00	O: 08.00 to 13.00
			P: 08.00 to 14.00 (11.00 to 17.00 in 1999)	
			Q: 08.30 to 12.30	R: 08.00 to 12.30
			U: 08.00 to 14.00	Y: 07.30 to 13.00 or 13.00 to 18.30

1 The length of a school day can be different every day for the same pupil.

2 Y5–8: school ends at 13.00 to 14.00 and about half of the pupils stay in school until 17.00–17.30 (learning, playing, . . .).

In some schools there is a relay of Y1–4 and Y5–8 between morning and afternoon teaching, but rarely.

(ii)	Number of hours of teaching per day.	B: 4	E: 4.5
		F: 4 (grades 1–2); 4–6 (grades 3–6)	G: 5–6
		H: 4–5 in Y1–4 (5–7 in Y5–8)	I: 5.5
		J: 5 or 6	L: 6
		N: 5	P: 5 (6 in 1999)
		Q: 4	
		R: 4–5	U: 4.5–5
		Y: 5	O: 5

(c)	How much mathematics teaching takes place in the first year of Primary school?	<i>Min/day</i>	<i>Days/week</i>	<i>Min/day</i>	<i>Days/week</i>
		B: 60	4	E: 50	5
		F: 45	3	G: 45	4
		H: 45	5 (4)	I: 40	5
		J: 45	4	L: 60	5
		N: 45	3	O: 45	3–4
		P: ?	4		
		Q: 150/week	5–6	R: 45	4
		U: ¹ 40–45	5		
		Y: 8 periods of 30 min each, i.e. 4 hours per week			

1 This can vary enormously!

Part B Framework

1. Does your country have a National Curriculum*? *Yes* *No*
B, E, F¹, G, H, I, J, L, N, O, P³, Q, R¹, Y U²
- 1 It is a framework for primary and secondary, only 4 pages long.
- 2 But school districts will have a mandated curriculum
- 3 In practice 3 different curricula on the teaching of mathematics are being implemented.

2. If so,
- (a) how detailed is the content? *Lesson by lesson* *Weekly/monthly* *Yearly* *2/Yearly* *None*
G B, Y (by units) B, I, J, L, N, O, P, E Y1-4
Other: F, R: very vague – only 4 pages in total H

- (b) Is it optional? *Yes* *No*
L, P, R B, E, F, G, H, I, J, N, O, Q, Y

- (c) Which of the following are also provided? *Schemes of work* *Lesson plans* *Tests* *None*
B, Y B, P E, G, L, Q F, H, I, J, N, O

3. (a) Does your country have:

- (i) National Tests*? *Yes* *at age* *No*
B: 10, 12, (14, 16) F¹, I, J, P, R, U²
E: 5, 7, 11, (13, 16)
G: (17, 18)
H: (18)³
L: 12
N: (16)
O: 10
Q: 10, 11
Y: 10, 12, (16, 18)

- 1 There is a matriculation examination at end of upper secondary school but as this stage of schooling is optional, not all children take this test.
- 2 There are commercial standardised tests which many districts give annually from grades 2–8. Results are often published locally by school.
- 3 70% of student population (in gymnaziums and 4-year technical secondaries) is tested in Maths within the matriculation exam

- (ii) Official tests* which schools can use to assess pupils on an optional basis? *Yes* *No*
B, F (grades 6, 9), E, H, I, J, N, O, P, R, Y
L, (P), Q, U¹

- 1 Commercially produced, standardised tests generally given annually from Kindergarten through to Grade 8

- (c) Are school results published nationally? *Yes* *No*
B, E, O, Q F, G, H, I, J, L, N, P, R, U¹, Y

- 1 The National Assessment of Educational Progress is given every 4 years at Grades 4, 8, 12. Results are published at state level

4. How many subjects are Primary teachers normally required to teach?
- | | | | |
|---------------------------------|-------|-----------|--------|
| B: 7 or 9 | E: 10 | F: 7–9 | G: 6 |
| H: 8 (all) in Y1–4 ¹ | I: 11 | J: 7 | L: All |
| N: 4–6 | P: ? | Q: 5 (+1) | R: All |
| U: Most | Y: 3 | O: 6–8 | |

¹ but in the majority of large schools, primary teachers usually share groups of subjects

5. Do primary schools have **specialist** subject teachers?

<i>Yes for</i>	<i>Yes for</i>	<i>No</i>
B: PE, Art (after 4th grade all subjects)	L: Music, PE	E, H ¹ (Y1–4), I, N
F: Languages	P: Music, PE	
G: PE, Languages	Q: English, (History), Art, Music, PE	
H: All subjects (Y5–8)	R: Art, Music, Languages	
J: Music	U: Art, Music, PE	
Y: Mother tongue (Malay, Chinese, etc.), PE, Music	O: Music, Languages, PE	

¹ In small schools, generally No. In other schools, teachers may share a class, each responsible for teaching a different group of subjects (e.g. Hungarian or Mathematics) but not at the same time.

6. Do Primary schools have a maths coordinator?

<i>Yes</i>	<i>No</i>
E, H (Y5–8)	B, F, G, H (Y1–4), I, J, L, N, P, R, U ¹
O, Q, Y	

¹ Many school districts have a mathematics supervisor for elementary grades or for all grades K–12. They would be responsible for maths in all schools in the district.

7. In the early years of Primary school, do teachers have classroom assistants to help them?

<i>Yes</i>	<i>Sometimes</i>	<i>No</i>
B, E,	F	G, H, I, J, L, N, O, P, Q, R, U, Y

8. Do teachers ever work in pairs with the same class?

<i>Yes</i>	<i>No</i>
B, F, H ¹ , N, U	E, G, I, J, L, O, P, Q, R, Y

¹ Not during the same lesson. Each is responsible for a certain set of subjects, e.g. maths and science or Hungarian and foreign language.

9. On average, for how many years does a teacher stay with his/her class?

B: 1–2	E: 1	F: 2 or 4 or 6	G: 2
H: 2 or 4	I: 1 ¹	J: 2	L: 1
N: 3	P: 3–5	Q: 3–4	R: 2–5
U: 1 ²	Y: 1–2	O: 4	

¹ In large schools, teachers change each year but in smaller schools, teachers may stay with same class for 2, 3, 4, or 8 years

² Some schools are experimenting with 'looping' in which a teacher stays with a class for 2–3 years.

Part B Framework (continued)

10. In your country, do schools ever have mixed age classes?

Yes

B, E, F, L, N, O, U

No

G, H, I, J, P, Q, R, Y

If **Yes**, *circumstances*:

B, E, F, N, O: Small schools,

E: Regular uneven intake

E, F: Deliberate teaching strategy

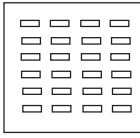
L: Depends on system: Montessori, Dalton, R. Steiner schools, etc.

U: Sometimes there are multi-age classes, particularly at the lower grades, to help build communities of learners.

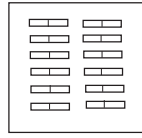
-
11. What is considered normal for the number of pupils in a class?
- | | | |
|----------|----------------|----------|
| B: 25–35 | E: 20–30 | F: 20–30 |
| G: 12–25 | H: 15–30 | I: 28–32 |
| J: 25–35 | L: 25–30 | N: 15–28 |
| P: 25–35 | Q: 25–30 | R: 25–30 |
| Y: 35–45 | O: 20–36 | |
| U: 20 | (kindergarten) | |
| 20–25 | (grades 1–3) | |
| 25–30 | (grades 4–5) | |
-

Part C Teaching Philosophy for Primary Mathematics

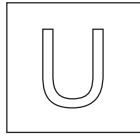
1. In your country, which arrangement of seating is most often seen in Primary classrooms?



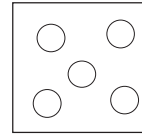
B, F, J, U, Y



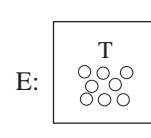
B, F, G, H, I, N,
O, P, Q, R, U, Y



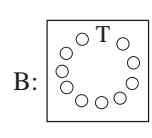
B, R (Y1 only),



B, E, F, I, L, U



E: Sitting in group on floor



B: Sitting in a circle

2. In general, what percentage of the maths lesson time is spent on:

	<i>Teaching whole class</i>	<i>Individual work</i>	<i>Group work</i>
B:	30	40	30
E: current	5	45	50
Sep 1999	50	10	40
F:	20	70	10
G:	90	2	8
H:	50	45	5
I:	90	5	5
J:	56	33	11
L:	33	33	33
N:	40	50	10
O:	65	30	5
P:	80	15	5
Q:	60	30	10
R:	30	60	10
Y:	60	20	20
U:	>75	?	?

3. Is the same teaching style normally used across all subjects?

<i>Yes</i>	<i>No</i>
F, G, I, N, O, P, Q	B, E, H, J, L, R, U, Y

4. In general, are Primary pupils set by ability for mathematics lessons?

<i>Yes</i>	<i>No</i>
Q, Y (Upper)	B, E, F, G, H ¹ , I, J, L, N, O, P, R, U ² Y (Lower Primary)

1 In large schools, usually classes are set by general ability on entry to Y1 (based on e.g. information from kindergarten, entry exam/interview for special class)

2 In a recent survey, about 14% of classes in grades 1–4 had students assigned to maths classes by ability.

5. Are Special Educational Needs (SEN) pupils in general taught in mainstream maths classes?

<i>Yes</i>	<i>No</i>	<i>Sometimes</i>
B, E, G, I, J, L, N, O, R, U ²	F, P, Q,	H ¹ , Y

1 For those with serious problems, there are special schools, or special classes within a mainstream school

2 But some exceptional education students are in self-contained classes for special needs students

6. How often do pupils work at the board in front of the class during maths lessons?

<i>Never</i>	<i>Rarely</i>	<i>Occasionally</i>	<i>Every lesson</i>
E	B, F, G, I ¹ , J, L, N, O, U, Y	I ¹ , P, Q, R, H	

1 Depending on age of pupils and teachers' preferences

Part C Teaching Philosophy for Primary Mathematics (continued)

7.	How are individual pupil mistakes in maths usually dealt with?	<i>Individually</i> B, E, F, G, I, J, N, Q, R, U ¹ , Y	<i>With whole class</i> B, G, H, L, O, P, Q, R, U ¹ , Y			
	1 Depends on how common the error is.					
8.	Is emphasis placed on learning by heart addition and multiplication facts?	<i>Yes</i> B, F, G, H, I, J, L, O, P, Q, R, U, Y	<i>No</i> E, N,			
9.	How often while learning mathematics does the whole class chant in unison?	<i>Every lesson</i> J, Q	<i>Most lessons</i> G, H, Y	<i>Occasionally</i> B, E, F, I, N, O, P, R, U	<i>Rarely</i> L	<i>Never</i>
10.	How often is maths homework set in the early years?	<i>Every lesson</i> B, H, I, J, O, P, Q, Y	<i>2/3 per week</i> F, G, U	<i>1/2 per week</i> N, R	<i>Rarely</i> E	<i>Never</i> L

Part D Resources for Mathematics

1. Teacher

- (a) Are teachers provided with a Teaching Manual* for mathematics teaching? Yes No
B, F, G, H, I, J, L, N, O, P, Q, U, Y E, R

For **Yes**,

- (i) Which of the following does it contain?

Scheme of work

B, F, H, I, J, L, O,
P, Q, U, Y

Lesson plans

B, F, G, L, Q, U

OHP's

F, Q, U, Y

Activities

B, F, G, H, L, N, Q, U, Y

Teaching notes

B, F, G, H, I, J, L, N, O, Q, U, Y

Mental tests

F, L, N, Q, U

Revision tests

B, F, H, J, L, N, Q, U

Common errors

F, H, N, Q, U

Other:

G: suggested exercises

H, U: use of manipulatives

H: teaching concepts

- (ii) Who provides it?

G, Y: Ministry of Education

L, O: Authors of scheme

B, F, H, I, J, N, U: Publisher of textbooks

B: Teachers

B, Q: Department of Education

- (b) Which of the following is it common for teachers of the early years to use in maths lessons?

Class number line

B, (E), G, H, I, L,
N, Q, R, U

Songs/rhymes

B, F, H, I, L,
P, Q, R, Y

Demonstration models

B, F, G, H, I, L, N, O,
P, Q, R, U, Y

Blackboard

B, F, G, H, I, J, L, N, O,
P, Q, R, U, Y

Whiteboard

F, I, O, Q, U, Y

Flip chart

B, E, Q, R

Overhead projector

F, O, Q, R, U, Y

Manipulatives

B, E, F, H, I, J, L, N,
P, Q, R, U, Y

Home-made worksheets

B, E, G, H, I, J, N, P,
Q, R, U, Y

Other

F: Games

H: Logic set, Dienes set, number cards, folding blackboards, curtains on blackboard, portable blackboard

I, H: Cuisenaire rods

Q: Visual information (formulae, words, drawing)

H, R: Magnetic board, blackboard with square grid

2. Pupils

- (a) Which of the following do pupils in the early years use in the majority of lessons?

Number lines

B, (E), G, H, I,
L, Q, R, U

Number cards

B, (E), F, G, H, I, L,
Q, Q, R, U, Y

*Text books**

E, F, G, H, I, J, L, N,
O, P, Q, R, U, Y

*Practice books**

(E), F, H, I, L, N, P,
Q, R, U, Y

Exercise Books

B, F, I, J, L, N, O, P, Q, R, Y

Manipulatives

B, F, G, H, I, J, L, O, P, Q, R, U, Y (occasionally)

- (b) Are text books *government produced* *officially approved* *commercially produced?*
B (70%), G, Q, Y H, I, J, N, P, Q, R, U¹, Y B, E, F, H, I, L, N, O, R, U
P, Q, U, Y

Part D Resources for Mathematics (ICT continued)

3. Information and Communication Technology (ICT)

(a)	(i)	How is the use of calculators regarded in Primary mathematics?	<i>Encouraged</i> E, F, I, J (Y5/6), L, N,	<i>Discouraged</i> (E), H, O, Y	<i>No official policy</i> B, G, P, Q, R
-----	-----	--	--	------------------------------------	--

U: Policy varies with school district

(ii)	How often are they used in practice?	<i>Every lesson</i>	<i>1/week</i> U	<i>Often</i> E, N	<i>Rarely</i> B, F, G, H (Y5–8), I, J, L, O, P, Q, R	<i>Never</i> H (1–4), Y
------	--------------------------------------	---------------------	--------------------	----------------------	--	----------------------------

(iii)	If used, who provides them?	<i>School</i> E, F, J, L, Q, R, U	<i>Parents</i> B, G, I, O, P, R
-------	-----------------------------	--------------------------------------	------------------------------------

(b)	Are most Primary schools in your country connected to the internet?	<i>Yes</i> F, I, Y	<i>No</i> B, G, H, E, J, L, N, O, P, Q, R, U
-----	---	-----------------------	---

(c) In general, how much use do Primary teachers make of the following in maths teaching?

(i)	Computers	<i>A lot</i> L,	<i>A little</i> E, I, N, Q, Y	<i>Not much</i> B, F, G, J, O, U ¹	<i>None at all</i> H, P, R
-----	------------------	--------------------	----------------------------------	--	-------------------------------

¹ In 1993, about a third to a half of elementary teachers reported using the computer/calculator once a week for maths.

(ii)	CD-ROMS	<i>A lot</i>	<i>A little</i> I, L, Y	<i>Not much</i> B, F, G, N, O, Q, U	<i>None at all</i> H, E, J, P, R
------	----------------	--------------	----------------------------	--	-------------------------------------

(iii)	Integrated Learning Systems (ILS)	<i>A lot</i>	<i>A little</i> E, P(Y1,2),	<i>Not much</i> B, L, Q, U	<i>None at all</i> G, H, I, N, O, R	<i>?</i> F, J
-------	--	--------------	--------------------------------	--------------------------------------	--	------------------

(iv)	Internet	<i>A lot</i>	<i>A little</i>	<i>Not much</i> B, I, L, N, Q, U, Y	<i>None at all</i> E, F, G, H, J, O, P, R
------	-----------------	--------------	-----------------	--	--

Used for:
 I: Teacher research, rather than pupils' use
 N: Searching for information, especially for project work
 Q: Teaching, assessment, motivation, playing
 Y: Teaching ideas, puzzles and problems.

Part E Primary Teacher Training

1.	How long is the normal Primary teacher training course? (in years)	B: 4 G: 4 J: 4 P: 3 or 5 U: 4	E: 1 or 4 H: 4 L: 4 Q: 5 Y: 1-2	F: 5.3 (average) I: 3 N: 4 R: 4 O: 4
----	---	---	---	--

2.	How can the course be studied?	<i>Full-time</i> E, F, G, H, J, L, N, O, P, Q, R, U, Y	<i>Part-time</i> B, F, I, L, P, Q, U	<i>Distance learning</i> O, R
----	--------------------------------	--	---	----------------------------------

3.	What percentage of it is school based?	B: 25 G: 10 L: 20 R: 10	E: 35 (4-year) or 66 (1-year) H: 20 N: 12 U: 13 ¹	F: 10 I: 16 P: variable Y: 30	J: 5 credits Q: 10 O: 15
----	--	----------------------------------	---	--	--------------------------------

¹ Depends on the institution where training is done. All would have at least one semester of full-time teaching practice in schools.

4.	What is the minimum Mathematics qualification required for entry?	B: ? G: Blank J: Mathematics I (4 credits) or Mathematics A (2 credits) P: Certificate U: 1-2 Maths courses as part of program	E: GCSE Grade C H: Matriculation and entry exam ¹ L: None O, Q: Secondary school maths	F: Matriculation examination I: D3 on Ordinary Level N: Blank R: High Secondary School Mathematics Y: 'O' Level Maths
----	---	---	--	---

¹ Optional for teaching Y1-4

5.	a)	Does your country have University Practice Schools?	<i>Yes</i> B, F, G, H, J, P,	<i>No</i> E, I, L, N, O, Q, R, U ¹ , Y
----	----	---	---------------------------------	--

¹ But some universities have affiliated professional development schools.

b) If **No**, how are schools chosen for teaching practice?

<i>Quality of teaching staff</i> H, N, Q	<i>Nearby location</i> E, G, I, N, Q, R	<i>Financial reasons</i> R	<i>Other</i> G, H, L, N, O, Q, R, U
---	--	-------------------------------	--

Other: O, G: Schools' desire to accept students

H: Some schools chosen to give students extra 2 months practice in a different school (Y1-4)

L: Students have to be trained at regular and special schools

N: Innovative, experienced, of high quality, dedicated

Q, R, Y: Near to students' homes

U: Agreement with the school district.

6.	During the course, how many different schools will a student experience?	B: variable H: 2 N: 4-5 U: varies enormously	E: 3 I: 6 P: 1-2 Y: 1	F: 3 J: 2 Q: 3-4 Y: 1	G: 3-4 L: 6 R: 2 O: up to 3
----	---	---	--------------------------------	--------------------------------	--------------------------------------

Part E Teacher Training (continued)

7.	In general, how many students will be assigned to each school?	B: variable H: 1-2 (PS all) N: 10-20 U: varies enormously	E: 1-2 I: 8-10 P: 2-4	F: (PS all) J: 20 (PS 100) Q: 3-4 Y: 1-5	G: 12-24 L: 2 R: 7-8 O: up to 30
----	--	--	-----------------------------	---	---

8.	(a)	Is there a Teaching Manual* for students?	<i>Yes</i> F ¹ , H ¹ , J, L, O, Q, Y	<i>No</i> B, E, G, I, N, P, R, U ²
		1 Same as normal Teachers' Manual		
		2 There are commercially produced books on methods of teaching maths in the elementary grades that are used as texts in university courses.		

(b)	If Yes , who provides it?	<i>University or college</i> J, L, O, Q, Y (school students' attached to for their practicum)	<i>State</i> Q	<i>Commercially produced</i> F, H, J, Q
-----	----------------------------------	---	-------------------	--

9.	How are the students assessed?			
(a)	Academic standards:	<i>End of course exams</i> B, E, F, G, H, J, L, N, O, Q, R, U	<i>Modular exams</i> B, E, H, I, L, N, Q, Y	<i>Dissertation</i> B, E, H, O, R,

(b)	Teaching competence:	<i>End of course exams</i> B, H, Q, R, U	<i>Dissertation</i> B, G, H, R	<i>Observations</i> B, E, F, G, H, I, J, L, N, O, P, R, U, Y
-----	-----------------------------	---	-----------------------------------	--

10.	Who has the final say on whether the students pass or fail?	<i>University Tutor</i> G, H, L, P, R, U ¹ , Y	<i>Maths Department</i> N,	<i>University Committee</i> F, E, H, J, N,
	<i>Other:</i>	O, Q, R: State Examining Commission H: Exam Committee	B: blank I: Exam Boards	

1 with input from the cooperating teacher in whose class the student works.

Part F Inservice Support

1. (a) In your country do teachers receive inservice? *Yes* *No*
B, E, F, G, H, I, J, L, N, O, P, Q, R, U, Y
-
- (b) If **Yes**, is it optional? *Yes* *No*
B, E¹, F¹, G, H, I, J¹, L, N, O, U E¹, F¹, J¹, P, Q, R, Y
1 Partly
-
2. Who pays for the inservice? *Nation* *Local Government* *School* *Teachers*
B, (E), G, I, B, F, J, N, O, P, Q E, F, H (80 or 100%) F, H (20 or 0%),
N, Y L, Q, R, Y I, R, Y
Other: U: School district
-
3. When does inservice usually take place?
During school hours *Immediately after school* *Evenings* *Weekends* *Holidays*
B, E, F, J, O, U, Y F, L, N, Q, R, U, Y B, G, P, U, Y B, H, O, P, Q, U, Y B, H, I, J, N,
O, Q, Y
-
4. Who runs inservice courses? *Government* *Universities* *School* *Private firms*
B, E, F, I, J, P, Y B, E, F, H, L, O, Q, R, Y E, H, Q, Y E, H, Y
Other : F: Commune (local educational boards)
G: Regional Education Centres
H: Pedagogical institutes (regional or national)
I: Education centres, Colleges of Education
L: Local authority
N: Colleges of Education, Local school authorities
U: School district runs inservice courses or hires a consultant
-
5. How many hours does a teacher attend inservice courses per year? E, H, I¹: 20 F: 24 G, N: 30 H²: 20
L, O: 40 Q: 60 Y: 100 (ideal case)
B, J, P, R: variable U: varies enormously³
- 1 It is not obligatory to take any inservice courses.
2 Estimated average, as inservice courses are not obligatory at the moment.
3 In many areas, teachers must complete a certain number of hours every so often to accertify.
-
6. How often do teachers observe:
(a) other colleagues in their school? *Regularly* *Often* *Rarely* *Never*
O H¹, N, B, G, H¹, J, L, P, Q, U, Y E, F, I, R
1 Depends on school
-
- (b) expert teachers in other schools? *Regularly* *Often* *Rarely* *Never*
O B, G, H, J, L, P, Q, R, U E, F, I, N, Y
-

Part G Other Relevant Information

1. Important information relating to mathematics teaching in Kindergarten or Primary schools which has **not** been covered in the previous sections.
 - E:
 - National curriculum is being revised (more detailed).
 - Teaching philosophy is in a state of change, moving from self-paced, individualised learning to whole-class, interactive teaching.
 - H:
 - In kindergarten, there are increasingly mixed age groups, resulting in problems with preparation for school.
 - Dealing with outstanding pupils, e.g. in Hungary there is a traditionally strong competition system (at county or national level) for children from age 8.
 - I:
 - A new curriculum is about to come onstream.
 - J:
 - The minimum mathematics qualification required in Primary teacher training courses is 2 credits. There is no mathematics subject in Kindergarten.
 - L:
 - For 10 years The Netherlands has been teaching *realistic maths* (set in the context of every day life). The schemes are more or less the same in all schools. More attention is given to the process than the outcome.
 - N:
 - The system of streaming: in Norway this happens very late in pupils' schooling and we have mixed ability classes from Y1 to Y11; there is difficulty in adjusting the teaching for the less able and the pupils with special educational needs.
 - P:
 - Kindergarten is not obligatory.
 - Q:
 - Intensive homework is the base of teaching efficiency.
 - State standard requirements for maths attainment have two levels: necessary and possible.
 - There are 3 basic methodologies for teaching and learning:

(1)	traditional (Pavlov, Menchinskaya, ...)	–	60%;
(2)	developing (Zankov, Davidov, ...)	–	30%;
(3)	cognitive (Galperin, Talizina, ...)	–	10%.
 - U:
 - Some states mandate kindergarten and others do not.
 - There is a real need to increase the mathematical content knowledge of elementary teachers.
 - Y:
 - Primary school mathematics teachers may not be competent in mathematics themselves.
 - All teachers are currently undergoing IT training to equip themselves for the skills to integrate IT into their teaching in the classroom.

2. Relevant issues or problems currently being talked about or debated in your country.
 - E:
 - SEN and gifted pupils
 - Use of ICT
 - Teachers' salaries
 - Quality of Primary teachers (especially in maths and English)
 - F:
 - Pupils' mathematical attainment
 - Amount of maths lessons
 - Should maths be taught by subject specialist in the 5th and 6th grades?
 - How can we encourage students to choose more mathematics?
 - Children's daycare after school.

Part G Other Relevant Information (continued)

- G:
- Educational reform
 - Inservice training
 - New curriculum
 - Decrease of birth rate
- H:
- Uncertainties about the new National Curriculum
 - Cut in number of maths lessons
 - Pressure being put on children by some city schools which require an entry (oral) exam at 6+
 - Problems of changing schools (at 10, 12 and 14 years old)
 - Special needs children
 - Lack of standardised testing
 - Lack of subject inspectory system
 - Finance problems (local government is sometimes not able to forward the national norms and not able to give help in the maintenance or development of schools)
 - Decrease in birth rate
 - Decline in reading and understanding abilities is steeper than the decline in mathematical attainment (and the second has been caused partly by the first)
 - Teachers' salaries
- I:
- New curriculum
 - Demand for inservice to accompany the new curriculum
 - Use of ICT in the classroom
 - Demand for learning support services in maths.
- J:
- The new Course of Study (National Curriculum) was established on 14th December 1998. It will be put into effect in April 2002. The number of hours of mathematics teaching was cut:

	<i>1st Grade</i>	<i>2nd Grade</i>	<i>3rd – 6th Grades</i>
Current	136 hours	175 hours	175 hours
New	114 hours	155 hours	150 hours

- L:
- SEN pupils: how to help them within mainstream classes with our 'realistic maths' schemes.
- N:
- Mathematics integrated in other subjects
 - Teachers' qualifications
 - Use of 'class teacher' covering most subjects versus 'subject teachers'
 - The economy of the schools
- O:
- Implementation of new curriculum
- P:
- From September 1999, a new kind of school scheme begins, with quite a new educational philosophy and with guidance for a new training system.
- Q:
- Resources (computers, graphic calculators, software, ...)
 - Finance (salaries, communication, textbooks, research, ...)
 - Quality of teachers' training.
- U:
- The issue of maths education reform, particularly as it relates to basic computational skills and algorithms and a broader maths curriculum, has resulted in 'maths wars' in some parts of the country.
- Y:
- Quality of teachers (kindergarten): knowledge of mathematics; ad hoc training
 - Information Technology and Mathematics Teaching (Primary School): teacher training
 - Thinking schools, learning nation: infusion of thinking skills in mathematics lessons.
 - Content reduction in the syllabus for maths to enable teachers to spend more time harnessing the benefits of IT and encouraging independent learning such as 'project work'.

Supplementary Questions

1. Are pupils in your country ever held back for a year? *Yes* *No*
 F, G, H, I, L, P, Q, R, (U¹) B, E, J, N, O, U, Y

Circumstances:

F, G, P, Q, (U): Learning difficulties, with parents' consent

H: In Kindergarten if not ready for Primary school at 6+;
 in Y1 if not ready for Y2;

in later years if pupil i) fails at least 3 subjects, or
 ii) fails 1 or 2 subjects and is not able to pass the 'end of summer' exam.

I: If child is considered not to have reached the required standards.

L: Mostly at the end of Kindergarten when the child is not yet able to learn to read, etc.

Q, R: Long illness, family problems

1 Most districts try not to hold pupils back. There are many moves by state educators and politicians to end the practice of social promotion.

2. a) How often are Primary schools inspected? B: 2 / year F, G, N, U: Never
 H: Very rarely Q: 5-6 / year
 E, I: 1 / 4 to 5 years R, Y: 1 / 2 to 3 years
 J: 1/year P: ?
 L: Not standardised O: 1 / 3 to 5 years

- b) Who carries out the inspection? B, I, J, L, Q, R, Y: Ministry of Education (government) Inspectors
 E: Private team of inspectors
 H: Advisers, experts
 O: County inspector
 P: Local school authorities
 Q: Teacher Training Institute

- c) How much notice is given? *Years* *Months* *Weeks* *Days* *None* *?*
 B, E, I¹, J, O, Q L, O, Q, R I¹, L, Y R H, P

1 A school will know when its next inspection is due but the specific date will be confirmed closer to the time

3. a) If a **teacher** is absent, what usually happens to his/her class?
Agency used *ILS used* *Class work alone* *Classes combined* *Taught by other colleagues*
 E O, Y (F), G, I, L, O, Q B, F, G, H, I, J, N, O, P, Q, R, Y

Other: F: Head teacher has list of students, retired teachers, **any** willing adults, etc.

I: If a teacher is on long term sick leave, the Dept. of Education pays for a substitute teacher;
 if the teacher is on personal leave day, classes are divided among staff or a resource teacher
 may be asked to take them.

L, N: School board tries to provide a substitute teacher, otherwise as above.

P: Pupils sometimes go home earlier

U: substitute teacher hired for the day

Part H Supplementary Questions (continued)

3. b) If a
- pupil**
- is absent, how do they usually catch up?

<i>Work sent home</i>	<i>Extra work given on return to do at home</i>	<i>Does not catch up</i>
F, H, I, J, Q, R, U, Y	F, H, I, N, O, R, Y	E, P (rarely)
<i>Copies from friend's book</i>	<i>Extra tuition during breaks or after school</i>	
B, E, F, G, O, P, Q, R	F, H, I, L, N, R, Y	

4. Which positions of leadership are usually found in Primary schools in your country?

<i>Head Teacher</i>	<i>Deputy Head</i>	<i>Year Head</i>	<i>Subject Head</i>	<i>Other:</i>
B, E, F, G, H, I, J	B, E, G, H, I, L	B, E, J	B, E, H, Q, Y	I: Posts of responsibility: (middle management)
L, N, O, P, Q, Y	N, O, Q, Y			Q: Teacher of methodology
U: (Principal)	R (Vice director)			U: Assistant principal in charge of curriculum in large schools
