

Technical Report
for
Longitudinal Proof Project
Year 10 Survey 2002
Volume 1
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In this technical report we present the design of the Year 10 survey and the data collected. The aims were, first, to identify patterns of mathematical reasoning in high-attaining Year 10 students, as a precursor to studying how these patterns might evolve in this and the previous year; and, second, to identify schools which seemed to be highly successful in developing students' mathematical reasoning, with a view to examining these schools more closely in order to identify factors that might have contributed to their success.

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1 AIMS

The general aim of the project is to advance understanding of how students learn to reason mathematically by studying their progress over time.

The more specific aims of the project are to:-

- a. identify, through large-scale longitudinal study, individual, school and teacher factors which are predictors of secondary school students' competencies in mathematical reasoning;
- b. identify and describe different school and classroom approaches that are effective in promoting the development of mathematical reasoning;
- c. investigate how individual students progress in mathematical reasoning and trace the factors that shape this progression;
- d. contribute to guidance for the teaching profession on ways to promote the development of mathematical reasoning.

2 THE DATA

2.1 *Sample and administration*

Three questionnaires were developed in Year 10: a student Proof Survey, a Teacher Questionnaire and a School Questionnaire. The questionnaires were based on the corresponding Years 9 and 8 questionnaires and are shown in full in Appendix A, B and C respectively. In addition, some of the items in the Y10 Proof Survey were taken from the survey instrument developed in the predecessor to this project (Healy and Hoyles, 1999).

Students were given the Y10 Proof Survey in June/July 2002, at which time their mathematics teachers completed the Y10 Teacher Questionnaire and a teacher, usually the head of mathematics, completed the Y10 School Questionnaire. Students had taken Key Stage 3 SATs tests in mathematics a year earlier, and a Baseline Mathematics Test (see section 3) a year before that, and their raw scores on these tests were used in the multilevel statistical analysis (Volume 2 of this report).

In Year 8, 3083 students participated in the study, of whom 2799 took the Proof Survey and 2663 took the Y8 Proof Survey *and* the Baseline Mathematics Test that we had devised for that year. Of the 2799 students who took the Y8 survey, 1984 took the Y9 survey (and all but 77 of these had also taken the Baseline Mathematics Test in Y8). There were also some students who took the Y9 survey but had missed the Y8 survey (for example, because of absence or moving class or school) and it was decided, for logistical as well as theoretical reasons, to put aside their scripts. Part of the fall in numbers from Y8 to Y9 was due to a reduction in the number of (whole) classes participating in Year 9, which was an inevitable consequence of the research design (see the next paragraph). Also 4 of our original 63 schools dropped out of the study in Year 9 (schools 38, 47, 49 and 63). (One of these schools had unfortunately lost their completed scripts, another had a new head of mathematics who felt their students were being overtested and a third was concerned that their students might be demoralised by the survey; the fourth school gave no reason.) In Year 10, five more schools dropped out (schools 36, 40, 41, 48 and 60), leaving us with 54 schools. Also, because of the research design mentioned above, some classes, and hence students, dropped out of the study. In the event, of the 1984 students who had taken the Year 8 and Year 9 survey, 1512 students also took the Year 10 survey, and it is these 1512 'proof students' on whom most of the data in this report

is based. The scripts of other students who took the Year 10 test (but not both the Year 9 and 8 tests) were put aside.

Most schools in the project have a single top mathematics set in Year 10, and where this is the case, our intention was to test just this set when our students reached Year 10. For Year 8, students were therefore selected in such a way that as many as possible of those who were likely to end up in the top set in Year 10 were chosen. Normally, whole classes were selected, unless students were taught mathematics in mixed attainment groups. So, for example, if students in a particular school were taught in two parallel mathematics classes in Year 8 but a single top set in Year 10, both Y8 classes were selected. On the other hand, if students were in mixed attainment groups in Y8 but there was a single top set in Y10, we asked the school to select the 30 or so Y8 students who were thought most likely to end up in the Y10 top set. A similar logic applied to the selection of Year 9 students. This meant, amongst other things, that if a school moved from parallel top sets in Year 8 to a single top set in Year 9, we would normally only survey the one class in Year 9. (In the event, there were 10 schools where we surveyed fewer classes in Year 9 [usually 1] than in Year 8 [usually 2].) However, some schools decided to continue surveying all (or most of) the original students, though we had not specifically asked them to do this, which occasionally resulted in students from a larger number of classes being involved in Year 9 than in Year 8. (Thus there were 5 schools where we surveyed more classes in Year 9 [usually 2] than in Year 8 [usually 1].) The same thing happened in Year 10.

In Year 8, 6 of our 63 schools had mixed attainment maths groups. A single Y8 class was selected in 25 of the remaining schools and 2 classes in the other 32 schools. Altogether, students from 114 classes were involved in the Year 8 survey.

In Year 9, we lost one of the schools with mixed attainment groups and according to the School Questionnaire the rest of these schools had all started setting their students. Altogether in Year 9, a single class was surveyed in 31 schools, two classes in 25 schools, three classes in 2 schools and nine classes in 1 school, making 96 classes in all.

In Year 10, almost all schools set their classes and none used mixed attainment grouping. Only one school claimed to be using banding only (see section 8, Table 8.8). In 22 of the 54 Year 10 schools, the proof students all came from 1 class, in 18 schools they came from 2 classes, in 9 schools from 3 classes, in 2 schools from 4 classes, in 2 schools from 5 classes and in 1 school from 8 classes. This made a total of 111 classes. Where the proof students were spread across more than 2 classes in a school, the number of these students was often very small in some of the classes. The distribution of proof students per class is shown in Table 2.1, below.

Y10 "Size" of classes	Number of Proof Students in Class						
	1 to 5 students	6 to 10 students	11 to 15 students	16 to 20 students	21 to 25 students	26 to 30 students	Grand Total
Number of classes	26	18	12	28	22	5	111

Table 2.1 Number of Y10 proof students per class

2.2 Selection of sample schools

Schools invited to participate in the project were chosen at random from within 9 preselected geographical regions. A description of the procedure can be found in the Y8 Technical Report.

3 BASELINE MATHEMATICS TEST and KEY STAGE 3 SCORES

In the previous project conducted by Hoyles and Healy in 1996 (see Healy & Hoyles, 1999), students' Y9 Key Stage 3 scores were used as a 'baseline' indicator of general mathematics attainment. Such an indicator is important if one is trying to identify other factors, be they at the student, class or school level, which might influence students' mathematical reasoning. For the Year 8 survey of the current project, it was felt that it would not be appropriate to use equivalent scores (ie Key Stage 2 test scores) for the Year 8 students, as they were derived from tests taken 2 years previously. We therefore developed a 'Baseline Mathematics Test' to provide us with comparable information, the final version of which is shown in Appendix A of the Y8 report. However, for the Year 9 survey, we decide we would make use of students' KS3 test scores, which were derived from national tests taken in May 2001, just a few weeks before the Y9 Proof Survey was administered. This allowed us to run two sets of multilevel analyses in Year 9, one set using the Y8 Baseline Mathematics Test as a base, the other using the KS3 scores. These two sets of baseline scores were again used in the Year 10 analyses, as well as the previous years' proof scores. The Year 10 multilevel analyses were undertaken by Luly Healy and Min Yang and are presented in Volume 2 of this report.

In the previous project, students' KS3 scores were converted into National curriculum levels, and these levels were used in the multilevel analysis. This time, we decided to use the raw scores as this would give a more fine-grained measure of mathematics attainment. Most of the students in our sample took Level 5 - 7 tests or Level 6 - 8 tests. To get a common scale we used a conversion table to change the Level 5 - 7 scores into equivalent Level 6 - 8 scores. The table was devised by QCA who kindly made it available to us. We have KS3 Level 6 - 8 scores (or equivalent) for 1476 of the 1512 Year 10 proof students.

4 STUDENT PROOF SURVEY

The Y10 Proof Survey is a 55-minute written test. It contains 4 arithmetic/algebra questions, 6 geometry questions, a logic question in the context of number and another in the context of geometry. To avoid giving priority to the algebra or the geometry questions, two versions, A and G, of the test were produced containing identical questions in different orders. The final version of the survey is shown in Appendix A.

One of the algebra (A3) and one of the geometry (G3) questions has a multiple-choice format. These questions were taken from the survey used with Year 10 students in the previous project and are similar to the multiple choice questions used in the Year 9 and Year 8 surveys. Two open response arithmetic/algebra questions (HA4 and HA7) and two open response geometry questions (HG4 and HG7) were also taken from the previous project. The Year 10 survey contains several 'core' items which were identical or very similar to items used in both the Year 9 and Year 8 surveys. Table 4.1, below, shows how the proof items compare across the years, with the core items shown in bold.

Y10	Y9	Y8	How the items compare across the years
A1a	A1a	A1	Y10 and Y8 identical, Y9 has similar setting, similar structure
A1b	A1b		extension item, similar in Y10 and Y9
	A2	A2	broadly similar
A3	A3	A3	similar (but with an extra choice each year): Y10 identical to previous project
	A4	A4	virtually identical
G1	G1	G1	Y10 and Y8 identical, Y9 similar setting, similar structure
	G2a	G2a	similar setting, identical structure

G2b	G2b	G2b	identical
G3	G3	G3	similar (but with an extra choice each year); Y10 identical to previous project
G4a	G4a	G4a	similar setting, similar structure
G4b	G4b	G4b	broadly similar in Y9 and Y8 but open-response format in Y9
G4c	G4c	G4c	broadly similar in Y9 and Y8 but open-response format in Y9
LA1	LA1	L1	identical
LG1	LG1		identical; different setting from L1/LA1 but same structure
HA4			identical to item from previous project
HA7			identical to item from previous project
HG4			identical to item from previous project
HG7			identical to item from previous project

Table 4.1 Items used in the Y10, Y9 and Y8 proof surveys

The survey was developed by interviewing individuals or small groups of Year 10 students in some of the five design schools on selected questions and by then compiling the questions into a survey and trailing this with groups or classes of Y10 students. In the interviews, we particularly focussed on items Y10G4b and Y10G4c, which were new, and on a variant of G2b involving rectangles, though this variant was not included in the final survey. Some of the students involved in the interviews and with the survey trials had also been involved in the development work in Years 9 and 8. Few students seemed to be aware that they had met the same or similar questions before.

4.1 Coding scheme and scoring scheme

For most of the open response questions in the proof survey, where students were asked for an answer and an explanation or justification, a coding scheme was devised for students' responses which had the general format shown in the table below. Often codes were divided into two or more subcodes (eg code 31, code 32), depending on the variety of student responses. Where a code ends in 0 (eg code 30), this indicates that it has *not* been subdivided. For items involving simpler responses, for example just a yes/no response, an attempt was made to match the general format as closely as possible.

code 1	Correct or incorrect decision; no valid justification
code 2	Correct or incorrect decision; incomplete or flawed justification
code 3	Correct decision; valid and adequate justification (eg at a specific level)
code 4	Correct decision; valid, higher level justification (eg at a general level)
code 9	Miscellaneous wrong answers

In general, code 3 was used for adequate correct answers, and code 4 (and sometimes also code 5) was used for responses that were at a higher level than was needed to answer the item correctly. Usually, code 4 (and code 5) answers were expressed in more general terms than code 3 answers.

A 3-digit code was used for items HA4, HA7, HG4 and HG7. The scheme for these items was based on the broad outline presented in the technical report of the previous survey.

The codes used for each item are shown in the coding scheme in Appendix D.

For the multilevel modelling, scores were used rather than codes. For most items, it was possible to score 0, 1, 2 or 3, and usually a score of 3 was given to any answer that was adequate (ie any code 3 answer). It was decided that answers that were better than adequate (ie code 4 and above) should also score 3, rather than more than 3, as the items did not require students to give such answers.

The scores used for each item are also shown in the coding scheme in Appendix D.

5 TEACHER AND SCHOOL QUESTIONNAIRES

A Teacher Questionnaire was given to all the mathematics teachers of the students in the Year 10 sample and a School Questionnaire was given to the head of mathematics in each school. The questionnaires are very similar to the Y9 and Y8 versions. The original questionnaires were developed in consultation with the teachers in our design schools and with the mathematics advisors in the 10 LEAs. Many of the factors that were included in the corresponding questionnaires in the previous project did not show any significant influence on students' patterns of reasoning. However, it was felt that the same factors should be included in the current questionnaires to see whether these findings would be replicated. The Teacher Questionnaire asks teachers about their age, teaching experience and qualifications, about their continuing professional development, their involvement in extra-curricular mathematics activities and their use of computer software in teaching. Teachers are also asked to evaluate the choices in the two multiple-choice questions in the students' Proof Survey. The School Questionnaire asks for basic information about the school, about mathematics teaching in Year 10 and about Y10 students' involvement in extra curricular mathematics activities. We have supplemented this with information taken from the DfES school performance tables and with information on eligibility for free school meals that was kindly released to us by the DfES. We also sent a further question to schools in the Autumn term 2002 to gather information about the 'stability' of the mathematics department. This is discussed at the end of Section 8.

The questionnaires can be seen in Appendix B and C, and findings are shown in Sections 7 and 8.

6 DATA FROM THE STUDENT PROOF SURVEY

6.1 *Descriptive Statistics*

The tables below give the following information for each item in the Y10 Proof Survey: the raw and percentage frequency for all the girls in the sample ($N = 767$), all the boys in the sample ($N = 745$), and for the total sample ($N = 1512$) for

- each specific response code
- each broad response category
- each score
- each choice (on the multiple choice items).

The meaning of the codes and the scores assigned to the codes are shown on the coding sheet in Appendix D. Please note that all percentages are rounded to the nearest whole number.

For comparison, frequencies are also given for related Y9 and Y8 items (for the same 1512 students). Also, contingency tables are given for scores or choices on certain pairs of Y10 items and Y10/Y9/Y8 items. Where appropriate, frequency tables are also given for particular response-types such as "use of tables" in Y10A1a and "use of diagram" in Y10G2b.

Correlation statistics and tests of significance, which were undertaken for us by Antonia Simon, are given in subsections 6.2, 6.3 and 6.4.

6.1A Descriptive Statistics for ALGEBRA items

Frequencies for Items Y8A1, Y9A1a, Y10A1a, Y9A1b, Y10A1b

Codes	Y8A1						Y9A1a						Y10A1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	6	10	16	1%	1%	1%	4	7	11	1%	1%	1%	5	10	15	1%	1%	1%
12	201	181	382	26%	24%	25%	119	104	223	16%	14%	15%	105	92	197	14%	12%	13%
12E	2	2	4	0%	0%	0%	2		2	0%	0%	0%				0%	0%	0%
12T				0%	0%	0%	1	2	3	0%	0%	0%				0%	0%	0%
13	70	40	110	9%	5%	7%	35	30	65	5%	4%	4%	52	40	92	7%	5%	6%
13E				0%	0%	0%				0%	0%	0%				0%	0%	0%
14	6	4	10	1%	1%	1%	8	5	13	1%	1%	1%	5	6	11	1%	1%	1%
21	34	38	72	4%	5%	5%	49	36	85	6%	5%	6%	23	25	48	3%	3%	3%
21T				0%	0%	0%	4	1	5	1%	0%	0%				0%	0%	0%
22	14	8	22	2%	1%	1%	1		1	0%	0%	0%	5	7	12	1%	1%	1%
22E	3	2	5	0%	0%	0%				0%	0%	0%				0%	0%	0%
23	4	9	13	1%	1%	1%	4	8	12	1%	1%	1%	5	7	12	1%	1%	1%
23T				0%	0%	0%	2		2	0%	0%	0%		2	2	0%	0%	0%
24				0%	0%	0%				0%	0%	0%		1	1	0%	0%	0%
30	242	264	506	32%	35%	33%	282	274	556	37%	37%	37%	294	302	596	38%	41%	39%
30E	6	10	16	1%	1%	1%	2	1	3	0%	0%	0%	6	2	8	1%	0%	1%
30ET				0%	0%	0%				0%	0%	0%		1	1	0%	0%	0%
30T	1	4	5	0%	1%	0%	8	4	12	1%	1%	1%	5	5	10	1%	1%	1%
41	4	5	9	1%	1%	1%	38	43	81	5%	6%	5%	5	6	11	1%	1%	1%
41E				0%	0%	0%	1	1	2	0%	0%	0%				0%	0%	0%
41T				0%	0%	0%				0%	0%	0%				0%	0%	0%
42	20	18	38	3%	2%	3%	61	71	132	8%	10%	9%	11	18	29	1%	2%	2%
42E		1	1	0%	0%	0%		1	1	0%	0%	0%				0%	0%	0%
42T	3	2	5	0%	0%	0%	1		1	0%	0%	0%	3		3	0%	0%	0%
50	24	33	57	3%	4%	4%	48	54	102	6%	7%	7%	45	52	97	6%	7%	6%
50E	2	1	3	0%	0%	0%	3		3	0%	0%	0%				0%	0%	0%
50LE	1	2	3	0%	0%	0%	1		1	0%	0%	0%	3	2	5	0%	0%	0%
50LTE				0%	0%	0%				0%	0%	0%				0%	0%	0%
50L	23	37	60	3%	5%	4%	40	53	93	5%	7%	6%	125	118	243	16%	16%	16%
50LT	7	5	12	1%	1%	1%	18	15	33	2%	2%	2%	29	20	49	4%	3%	3%
50T				0%	0%	0%	2	1	3	0%	0%	0%	2	2	4	0%	0%	0%
91				0%	0%	0%	1	3	4	0%	0%	0%	2	2	4	0%	0%	0%
92				0%	0%	0%		1	1	0%	0%	0%				0%	0%	0%
93	94	69	163	12%	9%	11%	32	30	62	4%	4%	4%	37	25	62	5%	3%	4%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-01 Y8A1, Y9A1a, Y10A1a: full code frequencies

Codes	Y8A1						Y9A1a						Y10A1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	6	10	16	1%	1%	1%	4	7	11	1%	1%	1%	5	10	15	1%	1%	1%
12	203	183	386	26%	25%	26%	122	106	228	16%	14%	15%	105	92	197	14%	12%	13%
13	70	40	110	9%	5%	7%	35	30	65	5%	4%	4%	52	40	92	7%	5%	6%
14	6	4	10	1%	1%	1%	8	5	13	1%	1%	1%	5	6	11	1%	1%	1%
21	34	38	72	4%	5%	5%	53	37	90	7%	5%	6%	23	25	48	3%	3%	3%
22	17	10	27	2%	1%	2%	1		1	0%	0%	0%	5	7	12	1%	1%	1%
23	4	9	13	1%	1%	1%	6	8	14	1%	1%	1%	5	9	14	1%	1%	1%
24				0%	0%	0%				0%	0%	0%		1	1	0%	0%	0%
30	249	278	527	32%	37%	35%	293	279	572	38%	37%	38%	305	310	615	40%	42%	41%
41	4	5	9	1%	1%	1%	38	44	82	5%	6%	5%	5	6	11	1%	1%	1%
42	23	21	44	3%	3%	3%	62	70	132	8%	9%	9%	14	18	32	2%	2%	2%
50	57	78	135	7%	10%	9%	112	125	237	15%	17%	16%	204	194	398	27%	26%	26%
c9	94	69	163	12%	9%	11%	33	34	67	4%	5%	4%	39	27	66	5%	4%	4%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-02 Y8A1, Y9A1a, Y10A1a: stripped code frequencies

Codes	Y8A1						Y9A1a						Y10A1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	285	237	522	37%	32%	35%	169	148	317	22%	20%	21%	167	148	315	22%	20%	21%
c2	55	57	112	7%	8%	7%	60	45	105	8%	6%	7%	33	42	75	4%	6%	5%
30	249	278	527	32%	37%	35%	293	279	572	38%	37%	38%	305	310	615	40%	42%	41%
c4	27	26	53	4%	3%	4%	100	114	214	13%	15%	14%	19	24	43	2%	3%	3%
50	57	78	135	7%	10%	9%	112	125	237	15%	17%	16%	204	194	398	27%	26%	26%
c9	94	69	163	12%	9%	11%	33	34	67	4%	5%	4%	39	27	66	5%	4%	4%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-03 Y8A1, Y9A1a, Y10A1a: broad code frequencies

Y8A1 broad codes	Y9A1a						Total
	c1	c2	30	c4	50	c9	
c1	178	41	148	62	67	26	522
c2	18	13	45	15	17	4	112
30	67	31	249	88	75	17	527
c4	4		24	14	10	1	53
50	11	6	46	20	49	3	135
c9	39	14	60	15	19	16	163
Total	317	105	572	214	237	67	1512

Table 6.1A-04 Y8A1 by Y9A1a: broad code frequencies (number)

Y8A1 broad codes	Y9A1a						Total
	c1	c2	30	c4	50	c9	
c1	12%	3%	10%	4%	4%	2%	35%
c2	1%	1%	3%	1%	1%	0%	7%
30	4%	2%	16%	6%	5%	1%	35%
c4	0%	0%	2%	1%	1%	0%	4%
50	1%	0%	3%	1%	3%	0%	9%
c9	3%	1%	4%	1%	1%	1%	11%
Total	21%	7%	38%	14%	16%	4%	100%

Table 6.1A-05 Y8A1 by Y9A1a: broad code frequencies (percentage)

Y9A1a broad codes	Y10A1a						Total
	c1	c2	30	c4	50	c9	
c1	157	14	83	6	40	17	317
c2	16	11	39	5	24	10	105
30	71	30	310	10	136	15	572
c4	35	10	95	5	63	6	214
50	18	7	72	15	116	9	237
c9	18	3	16	2	19	9	67
Total	315	75	615	43	398	66	1512

Table 6.1A-06 Y9A1a by Y10A1a: broad code frequencies (number)

Y9A1a broad codes	Y10A1a						Total
	c1	c2	30	c4	50	c9	
c1	10%	1%	5%	0%	3%	1%	21%
c2	1%	1%	3%	0%	2%	1%	7%
30	5%	2%	21%	1%	9%	1%	38%
c4	2%	1%	6%	0%	4%	0%	14%
50	1%	0%	5%	1%	8%	1%	16%
c9	1%	0%	1%	0%	1%	1%	4%
Total	21%	5%	41%	3%	26%	4%	100%

Table 6.1A-07 Y9A1a by Y10A1a: broad code frequencies (percentage)

Y8A1 broad codes	Y10A1a						Total
	c1	c2	30	c4	50	c9	
c1	184	27	161	15	107	28	522
c2	26	9	42	3	27	5	112
30	49	27	285	12	140	14	527
c4	5		30		17	1	53
50	3	2	44	9	75	2	135
c9	48	10	53	4	32	16	163
Total	315	75	615	43	398	66	1512

Table 6.1A-08 Y8A1 by Y10A1a: broad code frequencies (number)

Y10A1a							
Y8A1 broad codes	c1	c2	30	c4	50	c9	Total
c1	12%	2%	11%	1%	7%	2%	35%
c2	2%	1%	3%	0%	2%	0%	7%
30	3%	2%	19%	1%	9%	1%	35%
c4	0%	0%	2%	0%	1%	0%	4%
50	0%	0%	3%	1%	5%	0%	9%
c9	3%	1%	4%	0%	2%	1%	11%
Total	21%	5%	41%	3%	26%	4%	100%

Table 6.1A-09 Y8A1 by Y10A1a: broad code frequencies (percentage)

Scores	Y8A1						Y9A1a						Y10A1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	379	306	685	49%	41%	45%	202	182	384	26%	24%	25%	206	175	381	27%	23%	25%
1	34	38	72	4%	5%	5%	53	37	90	7%	5%	6%	23	25	48	3%	3%	3%
2	21	19	40	3%	3%	3%	7	8	15	1%	1%	1%	10	17	27	1%	2%	2%
3	333	382	715	43%	51%	47%	505	518	1023	66%	70%	68%	528	528	1056	69%	71%	70%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-10 Y8A1, Y9A1a, Y10A1a: score frequencies

Y8A1 score	Y9A1a score				
	0	1	2	3	Total
0	259	49	6	371	685
1	16	4	2	50	72
2	6	6	1	27	40
3	103	31	6	575	715
Total	384	90	15	1023	1512

Table 6.1A-11 Y8A1 by Y9A1a: score frequencies (number)

Y8A1 score	Y9A1a score				
	0	1	2	3	Total
0	17%	3%	0%	25%	45%
1	1%	0%	0%	3%	5%
2	0%	0%	0%	2%	3%
3	7%	2%	0%	38%	47%
Total	25%	6%	1%	68%	100%

Table 6.1A-12 Y8A1 by Y9A1a: score frequencies (percentage)

Y9A1a score	Y10A1a score				
	0	1	2	3	Total
0	201	8	9	166	384
1	24	5	3	58	90
2	2	2	1	10	15
3	154	33	14	822	1023
Total	381	48	27	1056	1512

Table 6.1A-13 Y9A1a by Y10A1a: score frequencies (number)

Y9A1a score	Y10A1a score				Total
	0	1	2	3	
0	13%	1%	1%	11%	25%
1	2%	0%	0%	4%	6%
2	0%	0%	0%	1%	1%
3	10%	2%	1%	54%	68%
Total	25%	3%	2%	70%	100%

Table 6.1A-14 Y9A1a by Y10A1a: score frequencies (percentage)

Y8A1 score	Y10A1a score				Total
	0	1	2	3	
0	276	21	16	372	685
1	16	4	2	50	72
2	15	2	1	22	40
3	74	21	8	612	715
Total	381	48	27	1056	1512

Table 6.1A-15 Y8A1 by Y10A1a: score frequencies (number)

Y8A1 score	Y10A1a score				Total
	0	1	2	3	
0	18%	1%	1%	25%	45%
1	1%	0%	0%	3%	5%
2	1%	0%	0%	1%	3%
3	5%	1%	1%	40%	47%
Total	25%	3%	2%	70%	100%

Table 6.1A-16 Y8A1 by Y10A1a: score frequencies (percentage)

Codes	Y9A1b						Y10A1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	5	10	15	1%	1%	1%				0%	0%	0%
11W		1	1	0%	0%	0%				0%	0%	0%
12	89	74	163	12%	10%	11%	106	90	196	14%	12%	13%
12G	1	4	5	0%	1%	0%				0%	0%	0%
12W	8	6	14	1%	1%	1%	1	1	2	0%	0%	0%
12Y		2	2	0%	0%	0%				0%	0%	0%
13	5	3	8	1%	0%	1%	21	8	29	3%	1%	2%
13G				0%	0%	0%		2	2	0%	0%	0%
13W	1		1	0%	0%	0%				0%	0%	0%
21	36	24	60	5%	3%	4%	8	2	10	1%	0%	1%
21G	5	2	7	1%	0%	0%				0%	0%	0%
21W	2	2	4	0%	0%	0%		1	1	0%	0%	0%
21Y		1	1	0%	0%	0%				0%	0%	0%
22	25	20	45	3%	3%	3%	23	21	44	3%	3%	3%
22G	1		1	0%	0%	0%	1		1	0%	0%	0%
22P	1		1	0%	0%	0%				0%	0%	0%
22W	3	2	5	0%	0%	0%				0%	0%	0%
23	2	1	3	0%	0%	0%				0%	0%	0%
23G	5	10	15	1%	1%	1%		3	3	0%	0%	0%
30	432	441	873	56%	59%	58%	500	506	1006	65%	68%	67%
30B	1		1	0%	0%	0%				0%	0%	0%
30P	2	1	3	0%	0%	0%	8	5	13	1%	1%	1%
30PW		1	1	0%	0%	0%				0%	0%	0%
30W	17	22	39	2%	3%	3%	17	16	33	2%	2%	2%
30Y	2	5	7	0%	1%	0%				0%	0%	0%
91	47	38	85	6%	5%	6%	37	31	68	5%	4%	4%
92	1	1	2	0%	0%	0%				0%	0%	0%
93	73	73	146	10%	10%	10%	45	59	104	6%	8%	7%
93P	3	1	4	0%	0%	0%				0%	0%	0%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-17 Y9A1b, Y10A1b: full code frequencies

Codes	Y9A1b						Y10A1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	5	11	16	1%	1%	1%				0%	0%	0%
12	98	86	184	13%	12%	12%	107	91	198	14%	12%	13%
13	6	3	9	1%	0%	1%	21	10	31	3%	1%	2%
21	43	29	72	6%	4%	5%	8	3	11	1%	0%	1%
22	30	22	52	4%	3%	3%	24	21	45	3%	3%	3%
23	7	11	18	1%	1%	1%		3	3	0%	0%	0%
30	454	470	924	59%	63%	61%	525	527	1052	68%	71%	70%
c9	124	113	237	16%	15%	16%	82	90	172	11%	12%	11%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-18 Y9A1b, Y10A1b: stripped code frequencies

Codes	Y9A1b						Y10A1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	109	100	209	14%	13%	14%	128	101	229	17%	14%	15%
c2	80	62	142	10%	8%	9%	32	27	59	4%	4%	4%
30	454	470	924	59%	63%	61%	525	527	1052	68%	71%	70%
c9	124	113	237	16%	15%	16%	82	90	172	11%	12%	11%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-19 Y9A1b, Y10A1b: broad code frequencies

Y9A1b broad codes	Y10A1b broad codes				
	c1	c2	30	c9	Total
c1	86	7	88	28	209
c2	27	5	90	20	142
30	72	36	750	66	924
c9	44	11	124	58	237
Total	229	59	1052	172	1512

Table 6.1A-20 Y9A1b by Y10A1b: broad code frequencies (number)

Y9A1b broad codes	Y10A1b broad codes				
	c1	c2	30	c9	Total
c1	6%	0%	6%	2%	14%
c2	2%	0%	6%	1%	9%
30	5%	2%	50%	4%	61%
c9	3%	1%	8%	4%	16%
Total	15%	4%	70%	11%	100%

Table 6.1A-21 Y9A1b by Y10A1b: broad code frequencies (percentage)

Scores	Y9A1b						Y10A1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	233	213	446	30%	29%	29%	210	191	401	27%	26%	27%
1	80	62	142	10%	8%	9%	32	27	59	4%	4%	4%
2	454	470	924	59%	63%	61%	525	527	1052	68%	71%	70%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-22 Y9A1b, Y10A1b: score frequencies

Y9A1b scores	Y10A1b scores			
	0	1	2	Total
0	216	18	212	446
1	47	5	90	142
2	138	36	750	924
Total	401	59	1052	1512

Table 6.1A-23 Y9A1b by Y10A1b: score frequencies (number)

Y9A1b scores	Y10A1b scores			
	0	1	2	Total
0	14%	1%	14%	29%
1	3%	0%	6%	9%
2	9%	2%	50%	61%
Total	27%	4%	70%	100%

Table 6.1A-24 Y9A1b by Y10A1b: score frequencies (percentage)

Y9A1a broad codes	Y9A1b broad codes				Total
	c1	c2	30	c9	
c1	193	11	33	80	317
c2	3	54	22	26	105
30	2	39	481	50	572
c4	3	21	161	29	214
50		10	217	10	237
c9	8	7	10	42	67
Total	209	142	924	237	1512

Table 6.1A-25 Y9A1a by Y9A1b: broad code frequencies (number)

Y9A1a broad codes	Y9A1b broad codes				Total
	c1	c2	30	c9	
c1	13%	1%	2%	5%	21%
c2	0%	4%	1%	2%	7%
30	0%	3%	32%	3%	38%
c4	0%	1%	11%	2%	14%
50	0%	1%	14%	1%	16%
c9	1%	0%	1%	3%	4%
Total	14%	9%	61%	16%	100%

Table 6.1A-26 Y9A1a by Y9A1b: broad code frequencies (percentage)

Y10A1a broad codes	Y10A1b broad codes				Total
	c1	c2	30	c9	
c1	210	11	29	65	315
c2		32	15	28	75
30	6	11	569	29	615
c4		1	40	2	43
50	2	2	390	4	398
c9	11	2	9	44	66
Total	229	59	1052	172	1512

Table 6.1A-27 Y10A1a by Y10A1b: broad code frequencies (number)

Y10A1a broad codes	Y10A1b broad codes				Total
	c1	c2	30	c9	
c1	14%	1%	2%	4%	21%
c2	0%	2%	1%	2%	5%
30	0%	1%	38%	2%	41%
c4	0%	0%	3%	0%	3%
50	0%	0%	26%	0%	26%
c9	1%	0%	1%	3%	4%
Total	15%	4%	70%	11%	100%

Table 6.1A-28 Y9A1b by Y10A1b: broad code frequencies (percentage)

Y9A1a score	Y9A1b score			Total
	0	1	2	
0	323	18	43	384
1	26	52	12	90
2	3	2	10	15
3	94	70	859	1023
Total	446	142	924	1512

Table 6.1A-29 Y9A1a by Y9A1b: score frequencies (number)

Y9A1a score	Y9A1b score			Total
	0	1	2	
0	21%	1%	3%	25%
1	2%	3%	1%	6%
2	0%	0%	1%	1%
3	6%	5%	57%	68%
Total	29%	9%	61%	100%

Table 6.1A-30 Y9A1a by Y9A1b: score frequencies (percentage)

Y10A1a score	Y10A1b score			Total
	0	1	2	
0	330	13	38	381
1	13	30	5	48
2	15	2	10	27
3	43	14	999	1056
Total	401	59	1052	1512

Table 6.1A-31 Y10A1a by Y10A1b: score frequencies (number)

Y10A1a score	Y10A1b score			Total
	0	1	2	
0	22%	1%	3%	25%
1	1%	2%	0%	3%
2	1%	0%	1%	2%
3	3%	1%	66%	70%
Total	27%	4%	70%	100%

Table 6.1A-32 Y10A1a by Y10A1b: score frequencies (percentage)

Frequencies for Items Y8A2, Y9A2a, Y9A2b, Y9A2c

Codes	Y8A2						Y9A2a						Y9A2b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	67	52	119	9%	7%	8%	5	19	24	1%	3%	2%				0%	0%	0%
11				0%	0%	0%				0%	0%	0%	6	9	15	1%	1%	1%
12				0%	0%	0%				0%	0%	0%				0%	0%	0%
21	24	20	44	3%	3%	3%	1		1	0%	0%	0%	2		2	0%	0%	0%
22	32	44	76	4%	6%	5%	3	11	14	0%	1%	1%		1	1	0%	0%	0%
23	1	13	14	0%	2%	1%	1	3	4	0%	0%	0%	5	4	9	1%	1%	1%
31	144	141	285	19%	19%	19%	45	50	95	6%	7%	6%	20	23	43	3%	3%	3%
32	236	230	466	31%	31%	31%	417	384	801	54%	52%	53%	346	329	675	45%	44%	45%
40	50	41	91	7%	6%	6%	106	106	212	14%	14%	14%	108	84	192	14%	11%	13%
50	27	25	52	4%	3%	3%	95	86	181	12%	12%	12%	83	72	155	11%	10%	10%
91	67	80	147	9%	11%	10%	46	46	92	6%	6%	6%	148	158	306	19%	21%	20%
92	2	3	5	0%	0%	0%				0%	0%	0%		1	1	0%	0%	0%
93	117	96	213	15%	13%	14%	48	40	88	6%	5%	6%	49	64	113	6%	9%	7%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-33 Y8A2, Y9A2a, Y9A2b: stripped code frequencies

Codes	Y8A2						Y9A2a						Y9A2b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	67	52	119	9%	7%	8%	5	19	24	1%	3%	2%	6	9	15	1%	1%	1%
c2	57	77	134	7%	10%	9%	5	14	19	1%	2%	1%	7	5	12	1%	1%	1%
c3	380	371	751	50%	50%	50%	462	434	896	60%	58%	59%	366	352	718	48%	47%	47%
40	50	41	91	7%	6%	6%	106	106	212	14%	14%	14%	108	84	192	14%	11%	13%
50	27	25	52	4%	3%	3%	95	86	181	12%	12%	12%	83	72	155	11%	10%	10%
c9	186	179	365	24%	24%	24%	94	86	180	12%	12%	12%	197	223	420	26%	30%	28%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-34 Y8A2, Y9A2a, Y9A2b: broad code frequencies

Codes	Y9A2ci						Y9A2cii					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11				0%	0%	0%				0%	0%	0%
12				0%	0%	0%				0%	0%	0%
20	12	8	20	2%	1%	1%	10	11	21	1%	1%	1%
31	108	95	203	14%	13%	13%	10	11	21	1%	1%	1%
32	391	373	764	51%	50%	51%	421	372	793	55%	50%	52%
91	149	158	307	19%	21%	20%	227	247	474	30%	33%	31%
92	2		2	0%	0%	0%	2		2	0%	0%	0%
93	105	111	216	14%	15%	14%	97	104	201	13%	14%	13%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-35 Y9A2ci, Y9A2cii: stripped code frequencies

Codes	Y9A2ci						Y9A2cii					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1				0%	0%	0%				0%	0%	0%
20	12	8	20	2%	1%	1%	10	11	21	1%	1%	1%
c3	499	468	967	65%	63%	64%	431	383	814	56%	51%	54%
c9	256	269	525	33%	36%	35%	326	351	677	43%	47%	45%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-36 Y9A2ci, Y9A2cii: broad code frequencies

Frequencies for Items Y8A3, Y9A3, Y10A3

Choice	Y8A3a 'own approach'						Y8A3b 'best mark'					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
A	312	222	534	41%	30%	35%	312	222	534	41%	30%	35%
B	179	226	405	23%	30%	27%	179	226	405	23%	30%	27%
C	211	205	416	28%	28%	28%	211	205	416	28%	28%	28%
D	40	65	105	5%	9%	7%	40	65	105	5%	9%	7%
c9	25	27	52	3%	4%	3%	25	27	52	3%	4%	3%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-37 Y8A3a, Y8A3b: choice frequencies

Choice	Y9A3a 'like best'						Y9A3b 'own approach'						Y9A3c 'best mark'					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
A	242	205	447	32%	28%	30%	226	229	455	29%	31%	30%	35	54	89	5%	7%	6%
B	190	147	337	25%	20%	22%	119	107	226	16%	14%	15%	41	47	88	5%	6%	6%
C	129	152	281	17%	20%	19%	72	88	160	9%	12%	11%	381	343	724	50%	46%	48%
D	139	153	292	18%	21%	19%	297	251	548	39%	34%	36%	33	42	75	4%	6%	5%
E	44	47	91	6%	6%	6%	24	29	53	3%	4%	4%	231	198	429	30%	27%	28%
c9	23	41	64	3%	6%	4%	29	41	70	4%	6%	5%	46	61	107	6%	8%	7%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-38 Y9A3a, Y9A3b, Y9A3c: choice frequencies

Choice	Y10A3a 'like best'						Y10A3b 'own approach'						Y10A3c 'best mark'					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
A	96	98	194	13%	13%	13%	102	88	190	13%	12%	13%	196	174	370	26%	23%	24%
B	136	123	259	18%	17%	17%	333	290	623	43%	39%	41%	15	23	38	2%	3%	3%
C	132	126	258	17%	17%	17%	63	68	131	8%	9%	9%	157	138	295	20%	19%	20%
D	295	241	536	38%	32%	35%	217	229	446	28%	31%	29%	57	79	136	7%	11%	9%
E	29	55	84	4%	7%	6%	13	25	38	2%	3%	3%	299	280	579	39%	38%	38%
F	64	84	148	8%	11%	10%	19	22	41	2%	3%	3%	5	11	16	1%	1%	1%
c9	15	18	33	2%	2%	2%	20	23	43	3%	3%	3%	38	40	78	5%	5%	5%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-39 Y10A3a, Y10A3b, Y10A3c: choice frequencies

Y10A3a	Y10A3b							Total
	A	B	C	D	E	F	c9	
A	95	44	10	31	8	3	3	194
B	17	214	3	19	2	3	1	259
C	29	74	73	72	2	6	2	258
D	27	195	18	274	8	10	4	536
E	12	24	11	17	16	2	2	84
F	9	71	16	30	2	17	3	148
c9	1	1		3			28	33
Total	190	623	131	446	38	41	43	1512

Table 6.1A-40 Y10A3a by Y10A3b: choice frequencies (number)

Y10A3a	Y10A3b							Total
	A	B	C	D	E	F	c9	
A	6%	3%	1%	2%	1%	0%	0%	13%
B	1%	14%	0%	1%	0%	0%	0%	17%
C	2%	5%	5%	5%	0%	0%	0%	17%
D	2%	13%	1%	18%	1%	1%	0%	35%
E	1%	2%	1%	1%	1%	0%	0%	6%
F	1%	5%	1%	2%	0%	1%	0%	10%
c9	0%	0%	0%	0%	0%	0%	2%	2%
Total	13%	41%	9%	29%	3%	3%	3%	100%

Table 6.1A-41 Y10A3a by Y10A3b: choice frequencies (percentage)

Y10A3b	Y10A3c							Total
	A	B	C	D	E	F	c9	
A	92	2	18	5	66		7	190
B	153	32	120	63	227	6	22	623
C	25		47	3	51		5	131
D	85	3	100	61	179	6	12	446
E	6		2	1	29			38
F	8	1	6	3	18	4	1	41
c9	1		2		9		31	43
Total	370	38	295	136	579	16	78	1512

Table 6.1A-42 Y10A3b by Y10A3c: choice frequencies (number)

Y10A3b	Y10A3c							Total
	A	B	C	D	E	F	c9	
A	6%	0%	1%	0%	4%	0%	0%	13%
B	10%	2%	8%	4%	15%	0%	1%	41%
C	2%	0%	3%	0%	3%	0%	0%	9%
D	6%	0%	7%	4%	12%	0%	1%	29%
E	0%	0%	0%	0%	2%	0%	0%	3%
F	1%	0%	0%	0%	1%	0%	0%	3%
c9	0%	0%	0%	0%	1%	0%	2%	3%
Total	24%	3%	20%	9%	38%	1%	5%	100%

Table 6.1A-43 Y10A3b by Y10A3c: choice frequencies (percentage)

Y10A3a	Y10A3c							Total
	A	B	C	D	E	F	c9	
A	108		13	2	65	1	5	194
B	67	32	40	22	84	1	13	259
C	38		106	7	100		7	258
D	120	1	107	91	197	3	17	536
E	7		5		72			84
F	27	5	23	14	60	11	8	148
c9	3		1		1		28	33
Total	370	38	295	136	579	16	78	1512

Table 6.1A-44 Y10A3a by Y10A3c: choice frequencies (number)

Y10A3a	Y10A3c							Total
	A	B	C	D	E	F	c9	
A	7%	0%	1%	0%	4%	0%	0%	13%
B	4%	2%	3%	1%	6%	0%	1%	17%
C	3%	0%	7%	0%	7%	0%	0%	17%
D	8%	0%	7%	6%	13%	0%	1%	35%
E	0%	0%	0%	0%	5%	0%	0%	6%
F	2%	0%	2%	1%	4%	1%	1%	10%
c9	0%	0%	0%	0%	0%	0%	2%	2%
Total	24%	3%	20%	9%	38%	1%	5%	100%

Table 6.1A-45 Y10A3a by Y10A3c: choice frequencies (percentage)

Y10A3d VR	Y10A3a: like best							Overall mean
	A	B	C	D	E	F	c9	
Average of Y10A3dA VR	0.90	0.44	0.50	0.48	0.60	0.61	0.36	0.55
Average of Y10A3dB VR	0.72	0.22	0.67	0.60	0.62	0.57	0.39	0.56
Average of Y10A3dC VR	0.59	0.53	0.94	0.60	0.63	0.66	0.33	0.65
Average of Y10A3dD VR	0.63	0.75	0.77	0.97	0.65	0.78	0.42	0.81
Average of Y10A3dE VR	0.20	0.28	0.21	0.20	0.04	0.12	0.15	0.20
Average of Y10A3dF VR	0.22	0.39	0.18	0.23	0.18	0.73	0.21	0.29
Total mean VR	3.26	2.62	3.27	3.10	2.71	3.47	1.88	3.06

Table 6.1A-46 Y10A3d by Y10A3a: validity rating

Y10A3d VR	Y10A3b: own approach							Overall mean
	A	B	C	D	E	F	c9	
Average of Y10A3dA VR	0.89	0.48	0.60	0.49	0.55	0.59	0.42	0.55
Average of Y10A3dB VR	0.71	0.40	0.77	0.65	0.68	0.49	0.53	0.56
Average of Y10A3dC VR	0.65	0.60	0.96	0.67	0.58	0.56	0.42	0.65
Average of Y10A3dD VR	0.68	0.80	0.73	0.95	0.55	0.76	0.51	0.81
Average of Y10A3dE VR	0.16	0.23	0.22	0.18	0.05	0.20	0.09	0.20
Average of Y10A3dF VR	0.25	0.35	0.22	0.24	0.18	0.63	0.28	0.29
Total mean VR	3.34	2.86	3.50	3.18	2.61	3.22	2.26	3.06

Table 6.1A-47 Y10A3d by Y10A3b: validity rating

Y10A3c: best mark								
Y10A3d VR	A	B	C	D	E	F	c9	Overall mean
Average of Y10A3dA VR	0.76	0.21	0.44	0.32	0.56	0.50	0.41	0.55
Average of Y10A3dB VR	0.58	0.18	0.61	0.57	0.56	0.56	0.44	0.56
Average of Y10A3dC VR	0.57	0.42	0.85	0.55	0.66	0.50	0.51	0.65
Average of Y10A3dD VR	0.80	0.63	0.82	0.98	0.79	0.88	0.72	0.81
Average of Y10A3dE VR	0.21	0.55	0.28	0.38	0.08	0.38	0.17	0.20
Average of Y10A3dF VR	0.30	0.39	0.24	0.32	0.28	0.88	0.36	0.29
Total mean VR	3.22	2.39	3.23	3.12	2.93	3.69	2.60	3.06

Table 6.1A-48 Y10A3d by Y10A3c: validity rating

Frequencies for Items Y8A4, Y9A4

Codes	Y8A4a						Y9A4a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	53	47	100	7%	6%	7%	29	34	63	4%	5%	4%
30	568	546	1114	74%	73%	74%	607	554	1161	79%	74%	77%
41	17	8	25	2%	1%	2%	27	18	45	4%	2%	3%
42	5	7	12	1%	1%	1%	25	24	49	3%	3%	3%
91	30	34	64	4%	5%	4%	25	36	61	3%	5%	4%
92		4	4	0%	1%	0%	1	4	5	0%	1%	0%
93	94	99	193	12%	13%	13%	53	75	128	7%	10%	8%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-49 Y8A4a, Y9A4a: stripped code frequencies

Codes	Y8A4a						Y9A4a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	53	47	100	7%	6%	7%	29	34	63	4%	5%	4%
30	568	546	1114	74%	73%	74%	607	554	1161	79%	74%	77%
c4	22	15	37	3%	2%	2%	52	42	94	7%	6%	6%
c9	124	137	261	16%	18%	17%	79	115	194	10%	15%	13%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-50 Y8A4a, Y9A4a: broad code frequencies

Codes	Y8A4b						Y9A4b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	10	17	27	1%	2%	2%	4	11	15	1%	1%	1%
12		1	1	0%	0%	0%	2	1	3	0%	0%	0%
31	238	242	480	31%	32%	32%	130	144	274	17%	19%	18%
32	429	386	815	56%	52%	54%	563	502	1065	73%	67%	70%
41	6	10	16	1%	1%	1%	5	5	10	1%	1%	1%
42	8	3	11	1%	0%	1%	1	3	4	0%	0%	0%
91	31	42	73	4%	6%	5%	22	37	59	3%	5%	4%
92	3	5	8	0%	1%	1%	1	4	5	0%	1%	0%
93	42	39	81	5%	5%	5%	39	38	77	5%	5%	5%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-51 Y8A4b, Y9A4b: stripped code frequencies

Codes	Y8A4b						Y9A4b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	10	18	28	1%	2%	2%	6	12	18	1%	2%	1%
c3	667	628	1295	87%	84%	86%	693	646	1339	90%	87%	89%
c4	14	13	27	2%	2%	2%	6	8	14	1%	1%	1%
c9	76	86	162	10%	12%	11%	62	79	141	8%	11%	9%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-52 Y8A4b, Y9A4b: broad code frequencies

Codes	Y8A4c						Y9A4c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	93	85	178	12%	11%	12%	50	33	83	7%	4%	5%
12	20	28	48	3%	4%	3%	36	19	55	5%	3%	4%
13	200	225	425	26%	30%	28%	227	256	483	30%	34%	32%
20	3	2	5	0%	0%	0%	4	4	8	1%	1%	1%
40	23	19	42	3%	3%	3%	75	61	136	10%	8%	9%
91	242	205	447	32%	28%	30%	208	203	411	27%	27%	27%
92	14	12	26	2%	2%	2%	10	11	21	1%	1%	1%
93	172	169	341	22%	23%	23%	157	158	315	20%	21%	21%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-53 Y8A4c, Y9A4c: stripped code frequencies

Codes	Y8A4c						Y9A4c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	313	338	651	41%	45%	43%	313	308	621	41%	41%	41%
20	3	2	5	0%	0%	0%	4	4	8	1%	1%	1%
40	23	19	42	3%	3%	3%	75	61	136	10%	8%	9%
c9	428	386	814	56%	52%	54%	375	372	747	49%	50%	49%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-54 Y8A4c, Y9A4c: broad code frequencies

Frequencies for Items Y10HA4, Y10HA7

Codes	Y10HA4					
	N Girls	N Boys	N All	% Girls	% Boys	% All
111	6	4	10	1%	1%	1%
112	8	7	15	1%	1%	1%
121	24	31	55	3%	4%	4%
121E	3	11	14	0%	1%	1%
122	72	52	124	9%	7%	8%
122E	12	26	38	2%	3%	3%
122T		1	1	0%	0%	0%
131	28	24	52	4%	3%	3%
132	90	67	157	12%	9%	10%
132E	3	5	8	0%	1%	1%
132T	1	1	2	0%	0%	0%
210	2		2	0%	0%	0%
211	51	59	110	7%	8%	7%
212	16	26	42	2%	3%	3%
213	20	15	35	3%	2%	2%
220	2	2	4	0%	0%	0%
221	17	10	27	2%	1%	2%
222	4	2	6	1%	0%	0%
223	4	6	10	1%	1%	1%
230	1	1	2	0%	0%	0%
231	18	16	34	2%	2%	2%
231T	1		1	0%	0%	0%
232	3	4	7	0%	1%	0%
232T	1		1	0%	0%	0%
233	6	3	9	1%	0%	1%
510	1		1	0%	0%	0%
511	3	1	4	0%	0%	0%
512	2		2	0%	0%	0%
513	18	2	20	2%	0%	1%
520		1	1	0%	0%	0%
522	1		1	0%	0%	0%
523	3	4	7	0%	1%	0%

Codes	Y10HA4					
	N Girls	N Boys	N All	% Girls	% Boys	% All
523A	3	3	6	0%	0%	0%
600	24	27	51	3%	4%	3%
601	3	1	4	0%	0%	0%
610	1	1	2	0%	0%	0%
611	3	1	4	0%	0%	0%
612	3		3	0%	0%	0%
613	9	10	19	1%	1%	1%
620	1		1	0%	0%	0%
621		1	1	0%	0%	0%
622		1	1	0%	0%	0%
623	4	1	5	1%	0%	0%
700	2	6	8	0%	1%	1%
710	4	4	8	1%	1%	1%
711	6	3	9	1%	0%	1%
720	6	7	13	1%	1%	1%
721	12	18	30	2%	2%	2%
721G	1	3	4	0%	0%	0%
722	5	3	8	1%	0%	1%
722G		6	6	0%	1%	0%
723	60	60	120	8%	8%	8%
723G	39	35	74	5%	5%	5%
801		4	4	0%	1%	0%
810		1	1	0%	0%	0%
811		3	3	0%	0%	0%
812	2		2	0%	0%	0%
820	1		1	0%	0%	0%
821	14	7	21	2%	1%	1%
822	8	9	17	1%	1%	1%
823	26	20	46	3%	3%	3%
823G		3	3	0%	0%	0%
91	67	67	134	9%	9%	9%
93	42	59	101	5%	8%	7%
Total	767	745	1512	100%	100%	100%

Table 6.1A-55 Y10HA4: full code frequencies

Y10HA4						
Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
111	6	4	10	1%	1%	1%
112	8	7	15	1%	1%	1%
121	27	42	69	4%	6%	5%
122	84	79	163	11%	11%	11%
131	28	24	52	4%	3%	3%
132	94	73	167	12%	10%	11%
210	2		2	0%	0%	0%
211	51	59	110	7%	8%	7%
212	16	26	42	2%	3%	3%
213	20	15	35	3%	2%	2%
220	2	2	4	0%	0%	0%
221	17	10	27	2%	1%	2%
222	4	2	6	1%	0%	0%
223	4	6	10	1%	1%	1%
230	1	1	2	0%	0%	0%
231	19	16	35	2%	2%	2%
232	4	4	8	1%	1%	1%
233	6	3	9	1%	0%	1%
510	1		1	0%	0%	0%
511	3	1	4	0%	0%	0%
512	2		2	0%	0%	0%
513	18	2	20	2%	0%	1%
520		1	1	0%	0%	0%
522	1		1	0%	0%	0%
523	6	7	13	1%	1%	1%
600	24	27	51	3%	4%	3%

Table 6.1A-56 Y10HA4: stripped code frequencies

Y10HA4						
Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
601	3	1	4	0%	0%	0%
610	1	1	2	0%	0%	0%
611	3	1	4	0%	0%	0%
612	3		3	0%	0%	0%
613	9	10	19	1%	1%	1%
620	1		1	0%	0%	0%
621		1	1	0%	0%	0%
622		1	1	0%	0%	0%
623	4	1	5	1%	0%	0%
700	2	6	8	0%	1%	1%
710	4	4	8	1%	1%	1%
711	6	3	9	1%	0%	1%
720	6	7	13	1%	1%	1%
721	13	21	34	2%	3%	2%
722	5	9	14	1%	1%	1%
723	99	95	194	13%	13%	13%
801		4	4	0%	1%	0%
810		1	1	0%	0%	0%
811		3	3	0%	0%	0%
812	2		2	0%	0%	0%
820	1		1	0%	0%	0%
821	14	7	21	2%	1%	1%
822	8	9	17	1%	1%	1%
823	26	23	49	3%	3%	3%
c9	109	126	235	14%	17%	16%
Total	767	745	1512	100%	100%	100%

Y10HA4						
Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	247	229	476	32%	31%	31%
c2	146	144	290	19%	19%	19%
c5	31	11	42	4%	1%	3%
c6	48	43	91	6%	6%	6%
c7	135	145	280	18%	19%	19%
c8	51	47	98	7%	6%	6%
c9	109	126	235	14%	17%	16%
Grand Total	767	745	1512	100%	100%	100%

Table 6.1A-57 Y10HA4: broad code frequencies

Y10HA7						
Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
110	3	3	6	0%	0%	0%
110G	1		1	0%	0%	0%
111	22	18	40	3%	2%	3%
111M	6	1	7	1%	0%	0%
112	40	40	80	5%	5%	5%
112M	1	2	3	0%	0%	0%
113	24	23	47	3%	3%	3%
113G	2	1	3	0%	0%	0%
113M	1	2	3	0%	0%	0%
120	1		1	0%	0%	0%
121	18	16	34	2%	2%	2%
121M	1		1	0%	0%	0%
122	90	53	143	12%	7%	9%
122G	4	1	5	1%	0%	0%
122M	9	6	15	1%	1%	1%
123	47	35	82	6%	5%	5%
123E	1		1	0%	0%	0%
123G	1		1	0%	0%	0%
123M	1	3	4	0%	0%	0%
131	6	2	8	1%	0%	1%
132	38	27	65	5%	4%	4%
132G	2		2	0%	0%	0%
132M	2	1	3	0%	0%	0%
132T		1	1	0%	0%	0%
133	40	29	69	5%	4%	5%
133M	1		1	0%	0%	0%
511	1		1	0%	0%	0%

Y10HA7						
Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
513	5		5	1%	0%	0%
521	1		1	0%	0%	0%
523	1	1	2	0%	0%	0%
523A	1	1	2	0%	0%	0%
601M	1		1	0%	0%	0%
610	1		1	0%	0%	0%
611	1	1	2	0%	0%	0%
613		1	1	0%	0%	0%
700	2	6	8	0%	1%	1%
700M	9	11	20	1%	1%	1%
701	1		1	0%	0%	0%
701M		1	1	0%	0%	0%
710	2	2	4	0%	0%	0%
711	1	2	3	0%	0%	0%
712	3	2	5	0%	0%	0%
712E	1		1	0%	0%	0%
713	3	1	4	0%	0%	0%
720	16	11	27	2%	1%	2%
721	26	18	44	3%	2%	3%
721M		1	1	0%	0%	0%
722	25	31	56	3%	4%	4%
723	13	4	17	2%	1%	1%
724	16	14	30	2%	2%	2%
821		1	1	0%	0%	0%
91	180	219	399	23%	29%	26%
93	81	142	223	11%	19%	15%
093D	14	11	25	2%	1%	2%
Total	767	745	1512	100%	100%	100%

Table 6.1A-58 Y10HA7: full code frequencies

Y10HA7

Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
110	4	3	7	1%	0%	0%
111	28	19	47	4%	3%	3%
112	41	42	83	5%	6%	5%
113	27	26	53	4%	3%	4%
120	1		1	0%	0%	0%
121	19	16	35	2%	2%	2%
122	103	60	163	13%	8%	11%
123	50	38	88	7%	5%	6%
131	6	2	8	1%	0%	1%
132	42	29	71	5%	4%	5%
133	41	29	70	5%	4%	5%
511	1		1	0%	0%	0%
513	5		5	1%	0%	0%
521	1		1	0%	0%	0%
523	2	2	4	0%	0%	0%
601	1		1	0%	0%	0%
610	1		1	0%	0%	0%
611	1	1	2	0%	0%	0%
613		1	1	0%	0%	0%
700	11	17	28	1%	2%	2%
701	1	1	2	0%	0%	0%
710	2	2	4	0%	0%	0%
711	1	2	3	0%	0%	0%
712	4	2	6	1%	0%	0%
713	3	1	4	0%	0%	0%
720	16	11	27	2%	1%	2%
721	26	19	45	3%	3%	3%
722	25	31	56	3%	4%	4%
723	13	4	17	2%	1%	1%
724	16	14	30	2%	2%	2%
821		1	1	0%	0%	0%
c9	275	372	647	36%	50%	43%
Total	767	745	1512	100%	100%	100%

Table 6.1A-59 Y10HA7: stripped code frequencies

Y10HA7

Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	362	264	626	47%	35%	41%
c5	9	2	11	1%	0%	1%
c6	3	2	5	0%	0%	0%
c7	118	104	222	15%	14%	15%
c8		1	1	0%	0%	0%
c9	275	372	647	36%	50%	43%
Total	767	745	1512	100%	100%	100%

Table 6.1A-60 Y10HA7: broad code frequencies

Scores	Y10HA4						Y10HA7					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	138	160	298	18%	21%	20%	288	390	678	38%	52%	45%
1	359	340	699	47%	46%	46%	415	302	717	54%	41%	47%
2	91	77	168	12%	10%	11%	46	37	83	6%	5%	5%
3	179	168	347	23%	23%	23%	18	16	34	2%	2%	2%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1A-61 Y10HA4, Y10HA7: score frequencies

Y10HA4 score	Y10HA7				
	0	1	2	3	Total
0	207	84	4	3	298
1	275	389	26	9	699
2	68	77	17	6	168
3	128	167	36	16	347
Total	678	717	83	34	1512

Table 6.1A-62 Y10HA4 by Y10HA7: score frequencies (number)

Y10HA4 score	Y10HA7				
	0	1	2	3	Total
0	14%	6%	0%	0%	20%
1	18%	26%	2%	1%	46%
2	4%	5%	1%	0%	11%
3	8%	11%	2%	1%	23%
Total	45%	47%	5%	2%	100%

Table 6.1A-63 Y10HA4 by Y10HA7: score frequencies (percentage)

6.1G Descriptive Statistics for GEOMETRY items

Frequencies for Items Y8G1, Y9G1, Y10G1

Codes	Y8G1						Y9G1						Y10G1					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	340	248	588	44%	33%	39%	399	311	710	52%	42%	47%	235	156	391	31%	21%	26%
12	29	46	75	4%	6%	5%	56	64	120	7%	9%	8%	38	42	80	5%	6%	5%
21	46	35	81	6%	5%	5%	65	57	122	8%	8%	8%	16	9	25	2%	1%	2%
22	21	21	42	3%	3%	3%	7	10	17	1%	1%	1%	12	17	29	2%	2%	2%
31	172	181	353	22%	24%	23%	155	180	335	20%	24%	22%	177	180	357	23%	24%	24%
32D	103	137	240	13%	18%	16%	39	71	110	5%	10%	7%	207	242	449	27%	32%	30%
32N	14	30	44	2%	4%	3%							16	22	38	2%	3%	3%
41D	1	8	9	0%	1%	1%		1	1	0%	0%	0%	4	9	13	1%	1%	1%
41N	5	6	11	1%	1%	1%	2	3	5	0%	0%	0%	3	10	13	0%	1%	1%
42D	13	8	21	2%	1%	1%	3		3	0%	0%	0%	22	14	36	3%	2%	2%
42N	10	7	17	1%	1%	1%	3	5	8	0%	1%	1%	9	10	19	1%	1%	1%
91	3	8	11	0%	1%	1%	27	30	57	4%	4%	4%	17	23	40	2%	3%	3%
93	10	10	20	1%	1%	1%	11	13	24	1%	2%	2%	11	11	22	1%	1%	1%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-01 Y8G1, Y9G1, Y10G1: full code frequencies

Codes	Y8G1						Y9G1						Y10G1					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	340	248	588	44%	33%	39%	399	311	710	52%	42%	47%	235	156	391	31%	21%	26%
12	29	46	75	4%	6%	5%	56	64	120	7%	9%	8%	38	42	80	5%	6%	5%
21	46	35	81	6%	5%	5%	65	57	122	8%	8%	8%	16	9	25	2%	1%	2%
22	21	21	42	3%	3%	3%	7	10	17	1%	1%	1%	12	17	29	2%	2%	2%
31	172	181	353	22%	24%	23%	155	180	335	20%	24%	22%	177	180	357	23%	24%	24%
c32	117	167	284	15%	22%	19%	39	71	110	5%	10%	7%	223	264	487	29%	35%	32%
c41	6	14	20	1%	2%	1%	2	4	6	0%	1%	0%	7	19	26	1%	3%	2%
c42	23	15	38	3%	2%	3%	6	5	11	1%	1%	1%	31	24	55	4%	3%	4%
c9	13	18	31	2%	2%	2%	38	43	81	5%	6%	5%	28	34	62	4%	5%	4%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-02 Y8G1, Y9G1, Y10G1: stripped code frequencies

Codes	Y8G1						Y9G1						Y10G1					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	340	248	588	44%	33%	39%	399	311	710	52%	42%	47%	235	156	391	31%	21%	26%
12	29	46	75	4%	6%	5%	56	64	120	7%	9%	8%	38	42	80	5%	6%	5%
c2	67	56	123	9%	8%	8%	72	67	139	9%	9%	9%	28	26	54	4%	3%	4%
c3	289	348	637	38%	47%	42%	194	251	445	25%	34%	29%	400	444	844	52%	60%	56%
c4	29	29	58	4%	4%	4%	8	9	17	1%	1%	1%	38	43	81	5%	6%	5%
c9	13	18	31	2%	2%	2%	38	43	81	5%	6%	5%	28	34	62	4%	5%	4%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-03 Y8G1, Y9G1, Y10G1: broad code frequencies

Y10G1 broad codes							
Y8G1 broad codes	11	12	c2	c3	c4	c9	Total
11	216	32	23	268	17	32	588
12	29	6	6	29	3	2	75
c2	29	11	8	59	10	6	123
c3	98	26	12	443	42	16	637
c4	9	2	2	35	9	1	58
c9	10	3	3	10		5	31
Total	391	80	54	844	81	62	1512

Table 6.1G-04 Y8G1 by Y10G1: broad code frequencies (number)

Y10G1 broad codes							
Y8G1 broad codes	11	12	c2	c3	c4	c9	Total
11	14%	2%	2%	18%	1%	2%	39%
12	2%	0%	0%	2%	0%	0%	5%
c2	2%	1%	1%	4%	1%	0%	8%
c3	6%	2%	1%	29%	3%	1%	42%
c4	1%	0%	0%	2%	1%	0%	4%
c9	1%	0%	0%	1%	0%	0%	2%
Total	26%	5%	4%	56%	5%	4%	100%

	N	%
Progress	489	32
Same	682	45
Regress	253	17
c9	88	6
Total	1512	100

Table 6.1G-05 Y8G1 by Y10G1: broad code frequencies (percentage) and progress

Scores	Y8G1						Y9G1						Y10G1					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	353	266	619	46%	36%	41%	437	354	791	57%	48%	52%	263	190	453	34%	26%	30%
1	29	46	75	4%	6%	5%	56	64	120	7%	9%	8%	38	42	80	5%	6%	5%
2	67	56	123	9%	8%	8%	72	67	139	9%	9%	9%	28	26	54	4%	3%	4%
2.5	172	181	353	22%	24%	23%	155	180	335	20%	24%	22%	177	180	357	23%	24%	24%
3	146	196	342	19%	26%	23%	47	80	127	6%	11%	8%	261	307	568	34%	41%	38%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-06 Y8G1, Y9G1, Y10G1: score frequencies

Y10G1 scores						
Y8G1 scores	0	1	2	2.5	3	Total
0	263	35	26	136	159	619
1	31	6	6	17	15	75
2	35	11	8	29	40	123
2.5	77	14	8	107	147	353
3	47	14	6	68	207	342
Total	453	80	54	357	568	1512

	N	%
Progress	610	40
Same	591	39
Regress	311	21
Total	1512	100

Table 6.1G-07 Y8G1 by Y10G1: score frequencies (number) and progress

Y10G1 scores						
Y8G1 scores	0	1	2	2.5	3	Total
0	17%	2%	2%	9%	11%	41%
1	2%	0%	0%	1%	1%	5%
2	2%	1%	1%	2%	3%	8%
2.5	5%	1%	1%	7%	10%	23%
3	3%	1%	0%	4%	14%	23%
Total	30%	5%	4%	24%	38%	100%

Table 6.1G-08 Y8G1 by Y10G1: score frequencies (percentage)

Frequencies for Items Y8G2a, Y9G2a, Y8G2b, Y9G2b, Y10G2b

Codes	Y8G2a						Y9G2a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	278	219	497	36%	29%	33%	156	131	287	20%	18%	19%
12	108	99	207	14%	13%	14%	59	64	123	8%	9%	8%
13	5	5	10	1%	1%	1%	1	2	3	0%	0%	0%
20	33	40	73	4%	5%	5%	19	26	45	2%	3%	3%
31	204	260	464	27%	35%	31%	312	332	644	41%	45%	43%
32	114	87	201	15%	12%	13%	164	128	292	21%	17%	19%
c9	25	35	60	3%	5%	4%	56	62	118	7%	8%	8%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-09 Y8G2a, Y9G2a: stripped code frequencies

Codes	Y8G2b						Y9G2b						Y10G2b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	27	33	60	4%	4%	4%	11	8	19	1%	1%	1%	8	17	25	1%	2%	2%
12	104	117	221	14%	16%	15%	100	119	219	13%	16%	14%	108	146	254	14%	20%	17%
12A	1	3	4	0%	0%	0%	3	1	4	0%	0%	0%	11	28	39	1%	4%	3%
13	5	3	8	1%	0%	1%	2	1	3	0%	0%	0%	5		5	1%	0%	0%
13E	1		1	0%	0%	0%	1		1	0%	0%	0%				0%	0%	0%
20	166	155	321	22%	21%	21%	184	157	341	24%	21%	23%	101	83	184	13%	11%	12%
20A	37	68	105	5%	9%	7%	75	118	193	10%	16%	13%	94	109	203	12%	15%	13%
31AD	22	27	49	3%	4%	3%	24	18	42	3%	2%	3%	52	86	138	7%	12%	9%
31AN	11	18	29	1%	2%	2%	16	18	34	2%	2%	2%	20	22	42	3%	3%	3%
31D	86	97	183	11%	13%	12%	113	105	218	15%	14%	14%	113	80	193	15%	11%	13%
31N	77	63	140	10%	8%	9%	89	93	182	12%	12%	12%	44	31	75	6%	4%	5%
32AD							1	5	6	0%	1%	0%	4	6	10	1%	1%	1%
32AN							1	1	2	0%	0%	0%	1		1	0%	0%	0%
32D	79	43	122	10%	6%	8%	50	21	71	7%	3%	5%	60	27	87	8%	4%	6%
32N	42	19	61	5%	3%	4%	26	13	39	3%	2%	3%	18	7	25	2%	1%	2%
40AD							1	1	2	0%	0%	0%	4	2	6	1%	0%	0%
40AN								1	1	0%	0%	0%		1	1	0%	0%	0%
40D	32	23	55	4%	3%	4%	31	23	54	4%	3%	4%	62	50	112	8%	7%	7%
40N	7	11	18	1%	1%	1%	6	5	11	1%	1%	1%	4	7	11	1%	1%	1%
91	41	39	80	5%	5%	5%	22	21	43	3%	3%	3%	43	27	70	6%	4%	5%
92	2	3	5	0%	0%	0%		1	1	0%	0%	0%		1	1	0%	0%	0%
93	27	23	50	4%	3%	3%	11	15	26	1%	2%	2%	15	15	30	2%	2%	2%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-10 Y8G2b, Y9G2b, Y10G2b: full code frequencies

Codes	Y8G2b						Y9G2b						Y10G2b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	27	33	60	4%	4%	4%	11	8	19	1%	1%	1%	8	17	25	1%	2%	2%
12	105	120	225	14%	16%	15%	103	120	223	13%	16%	15%	119	174	293	16%	23%	19%
13	6	3	9	1%	0%	1%	3	1	4	0%	0%	0%	5		5	1%	0%	0%
20	203	223	426	26%	30%	28%	259	275	534	34%	37%	35%	195	192	387	25%	26%	26%
31	196	205	401	26%	28%	27%	242	234	476	32%	31%	31%	229	219	448	30%	29%	30%
32	121	62	183	16%	8%	12%	78	40	118	10%	5%	8%	83	40	123	11%	5%	8%
40	39	34	73	5%	5%	5%	38	30	68	5%	4%	4%	70	60	130	9%	8%	9%
91	41	39	80	5%	5%	5%	22	21	43	3%	3%	3%	43	27	70	6%	4%	5%
92	2	3	5	0%	0%	0%		1	1	0%	0%	0%		1	1	0%	0%	0%
93	27	23	50	4%	3%	3%	11	15	26	1%	2%	2%	15	15	30	2%	2%	2%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-11 Y8G2b, Y9G2a, Y10G2b: stripped code frequencies

Codes	Y8G2b						Y9G2b						Y10G2b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	27	33	60	4%	4%	4%	11	8	19	1%	1%	1%	8	17	25	1%	2%	2%
c12, c13	111	123	234	14%	17%	15%	106	121	227	14%	16%	15%	124	174	298	16%	23%	20%
20	203	223	426	26%	30%	28%	259	275	534	34%	37%	35%	195	192	387	25%	26%	26%
c3	317	267	584	41%	36%	39%	320	274	594	42%	37%	39%	312	259	571	41%	35%	38%
40	39	34	73	5%	5%	5%	38	30	68	5%	4%	4%	70	60	130	9%	8%	9%
c9	70	65	135	9%	9%	9%	33	37	70	4%	5%	5%	58	43	101	8%	6%	7%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-12 Y8G2b, Y9G2a, Y10G2b: broad code frequencies

Y9G2b stripped codes								
Y8G2b stripped codes	11	c12, c13	20	c3	40	c9	Total	
11	4	12	13	24	2	5	60	
c12, c13	5	46	78	81	11	13	234	
20	3	56	219	122	14	12	426	
c3	5	71	170	292	25	21	584	
40		11	20	31	10	1	73	
c9	2	31	34	44	6	18	135	
Total	19	227	534	594	68	70	1512	

Table 6.1G-13 Y8G2b by Y9G2b: stripped code frequencies (number)

Y9G2b stripped codes							
Y8G2b stripped codes	11	c12, c13	20	c3	40	c9	Total
11	0%	1%	1%	2%	0%	0%	4%
c12, c13	0%	3%	5%	5%	1%	1%	15%
20	0%	4%	14%	8%	1%	1%	28%
c3	0%	5%	11%	19%	2%	1%	39%
40	0%	1%	1%	2%	1%	0%	5%
c9	0%	2%	2%	3%	0%	1%	9%
Total	1%	15%	35%	39%	4%	5%	100%

	N	%
Progress	382	25
Same	571	38
Regress	372	25
c9	187	12
Total	1512	100

Table 6.1G-14 Y8G2b by Y9G2b: stripped code frequencies (percentage) and progress

Y10G2b stripped codes							
Y9G2b stripped codes	11	c12, c13	20	c3	40	c9	Total
11	2	2	6	8		1	19
c12,c13	5	72	46	62	18	24	227
20	6	112	201	162	32	21	534
c3	8	89	111	302	52	32	594
40		8	14	19	23	4	68
c9	4	15	9	18	5	19	70
Total	25	298	387	571	130	101	1512

Table 6.1G-15 Y9G2b by Y10G2b: stripped code frequencies (number)

Y9G2b stripped codes	Y10G2b stripped codes						
	11	c12, c13	20	c3	40	c9	Total
11	0%	0%	0%	1%	0%	0%	1%
c12,c13	0%	5%	3%	4%	1%	2%	15%
20	0%	7%	13%	11%	2%	1%	35%
c3	1%	6%	7%	20%	3%	2%	39%
40	0%	1%	1%	1%	2%	0%	4%
c9	0%	1%	1%	1%	0%	1%	5%
Total	2%	20%	26%	38%	9%	7%	100%

	N	%
Progress	388	26
Same	600	40
Regress	372	25
c9	152	10
Total	1512	100

Table 6.1G-16 Y9G2b by Y10G2b: stripped code frequencies (percentage) and progress

Y8G2b stripped codes	Y10G2b stripped codes						
	11	c12,c13	20	c3	40	c9	Total
11	6	12	8	25	4	5	60
c12,c13	7	61	59	66	22	19	234
20	3	88	150	129	31	25	426
c3	5	98	130	279	47	25	584
40		11	13	30	15	4	73
c9	4	28	27	42	11	23	135
Total	25	298	387	571	130	101	1512

Table 6.1G-17 Y8G2b by Y10G2b: stripped code frequencies (number)

Y8G2b stripped codes	Y10G2b stripped codes						
	11	c12,c13	20	c3	40	c9	Total
11	0%	1%	1%	2%	0%	0%	4%
c12,c13	0%	4%	4%	4%	1%	1%	15%
20	0%	6%	10%	9%	2%	2%	28%
c3	0%	6%	9%	18%	3%	2%	39%
40	0%	1%	1%	2%	1%	0%	5%
c9	0%	2%	2%	3%	1%	2%	9%
Total	2%	20%	26%	38%	9%	7%	100%

	N	%
Progress	403	27
Same	511	34
Regress	385	25
c9	213	14
Total	1512	100

Table 6.1G-18 Y8G2b by Y10G2b: stripped code frequencies (percentage) and progress

Scores	Y8G2b						Y9G2b						Y10G2b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	97	98	195	13%	13%	13%	44	45	89	6%	6%	6%	66	60	126	9%	8%	8%
1	111	123	234	14%	17%	15%	106	121	227	14%	16%	15%	124	174	298	16%	23%	20%
2	203	223	426	26%	30%	28%	259	275	534	34%	37%	35%	195	192	387	25%	26%	26%
3	356	301	657	46%	40%	43%	358	304	662	47%	41%	44%	382	319	701	50%	43%	46%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-19 Y8G2b, Y9G2b, Y10G2b: score frequencies

Y8G2b score	Y9G2b score				Total
	0	1	2	3	
0	29	43	47	76	195
1	18	46	78	92	234
2	15	56	219	136	426
3	27	82	190	358	657
Total	89	227	534	662	1512

Table 6.1G-20 Y8G2b by Y9G2b: score frequencies (number)

Y8G2b score	Y9G2b score				Total
	0	1	2	3	
0	2%	3%	3%	5%	13%
1	1%	3%	5%	6%	15%
2	1%	4%	14%	9%	28%
3	2%	5%	13%	24%	43%
Total	6%	15%	35%	44%	100%

Table 6.1G-21 Y8G2b by Y9G2b: score frequencies (percentage) and progress

	N	%
Progress	472	31
Same	652	43
Regress	388	26
Total	1512	100

Y9G2b score	Y10G2b score				Total
	0	1	2	3	
0	26	17	15	31	89
1	29	72	46	80	227
2	27	112	201	194	534
3	44	97	125	396	662
Total	126	298	387	701	1512

Table 6.1G-22 Y9G2b by Y10G2b: score frequencies (number)

Y9G2b score	Y10G2b score				Total
	0	1	2	3	
0	2%	1%	1%	2%	6%
1	2%	5%	3%	5%	15%
2	2%	7%	13%	13%	35%
3	3%	6%	8%	26%	44%
Total	8%	20%	26%	46%	100%

Table 6.1G-23 Y9G2b by Y10G2b: score frequencies (percentage) and progress

	N	%
Progress	383	25
Same	695	46
Regress	434	29
Total	1512	100

Y8G2b score	Y10G2b score				Total
	0	1	2	3	
0	38	40	35	82	195
1	26	61	59	88	234
2	28	88	150	160	426
3	34	109	143	371	657
Total	126	298	387	701	1512

Table 6.1G-24 Y8G2b by Y10G2b: score frequencies (number)

Y8G2b score	Y10G2b score				Total
	0	1	2	3	
0	3%	3%	2%	5%	13%
1	2%	4%	4%	6%	15%
2	2%	6%	10%	11%	28%
3	2%	7%	9%	25%	43%
Total	8%	20%	26%	46%	100%

Table 6.1G-25 Y8G2b by Y10G2b: score frequencies (percentage) and progress

	N	%
Progress	464	31
Same	620	41
Regress	428	28
Total	1512	100

Frequencies for Items Y8G3, Y9G3, Y10G3

Choice	Y8G3a 'own approach'						Y8G3b 'best mark'					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
A	347	244	591	45%	33%	39%	88	71	159	11%	10%	11%
B	257	260	517	34%	35%	34%	190	135	325	25%	18%	21%
C	62	105	167	8%	14%	11%	374	408	782	49%	55%	52%
D	69	109	178	9%	15%	12%	73	94	167	10%	13%	11%
c9	32	27	59	4%	4%	4%	42	37	79	5%	5%	5%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-26 Y8G3a, Y8G3b: choice frequencies

Choice	Y9G3a 'like best'						Y9G3b 'own approach'						Y9G3c 'best mark'					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
A	125	116	241	16%	16%	16%	188	181	369	25%	24%	24%	139	140	279	18%	19%	18%
B	163	146	309	21%	20%	20%	167	145	312	22%	19%	21%	193	152	345	25%	20%	23%
C	202	177	379	26%	24%	25%	205	168	373	27%	23%	25%	82	86	168	11%	12%	11%
D	71	108	179	9%	14%	12%	90	121	211	12%	16%	14%	114	110	224	15%	15%	15%
E	178	162	340	23%	22%	22%	85	83	168	11%	11%	11%	179	202	381	23%	27%	25%
c9	28	36	64	4%	5%	4%	32	47	79	4%	6%	5%	60	55	115	8%	7%	8%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-27 Y9G3a, Y9G3b, Y9G3c: choice frequencies

Choice	Y10G3a 'like best'						Y10G3b 'own approach'						Y10G3c 'best mark'					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
A	225	226	451	29%	30%	30%	151	165	316	20%	22%	21%	23	35	58	3%	5%	4%
B	105	82	187	14%	11%	12%	171	119	290	22%	16%	19%	172	143	315	22%	19%	21%
C	176	189	365	23%	25%	24%	144	156	300	19%	21%	20%	361	320	681	47%	43%	45%
D	91	94	185	12%	13%	12%	209	200	409	27%	27%	27%	31	41	72	4%	6%	5%
E	93	66	159	12%	9%	11%	65	70	135	8%	9%	9%	101	105	206	13%	14%	14%
F	55	68	123	7%	9%	8%	4	10	14	1%	1%	1%	27	57	84	4%	8%	6%
c9	22	20	42	3%	3%	3%	23	25	48	3%	3%	3%	52	44	96	7%	6%	6%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-28 Y10G3a, Y10G3b, Y10G3c: choice frequencies

Y10G3b choice codes								
Y10G3a choice codes	A	B	C	D	E	F	c9	Total
A	208	59	39	105	31	3	6	451
B	15	118	20	28	5	1		187
C	36	62	183	64	17		3	365
D	7	14	6	147	10	1		185
E	26	23	19	29	57	3	2	159
F	23	13	30	35	15	6	1	123
c9	1	1	3	1			36	42
Total	316	290	300	409	135	14	48	1512

Table 6.1G-29 Y10G3a by Y10G3b: choice frequencies (number)

Y10G3b choice codes								
Y10G3a choice codes	A	B	C	D	E	F	c9	Total
A	14%	4%	3%	7%	2%	0%	0%	30%
B	1%	8%	1%	2%	0%	0%	0%	12%
C	2%	4%	12%	4%	1%	0%	0%	24%
D	0%	1%	0%	10%	1%	0%	0%	12%
E	2%	2%	1%	2%	4%	0%	0%	11%
F	2%	1%	2%	2%	1%	0%	0%	8%
c9	0%	0%	0%	0%	0%	0%	2%	3%
Total	21%	19%	20%	27%	9%	1%	3%	100%

Table 6.1G-30 Y10G3a by Y10G3b: choice frequencies (percentage)

Y10G3c choice codes								
Y10G3b choice codes	A	B	C	D	E	F	c9	Total
A	45	59	113	19	45	25	10	316
B	2	97	139	8	25	8	11	290
C	1	47	190	4	34	15	9	300
D	9	85	179	38	58	25	15	409
E	1	23	48	3	39	9	12	135
F		2	6		5	1		14
c9		2	6			1	39	48
Total	58	315	681	72	206	84	96	1512

Table 6.1G-31 Y10G3b by Y10G3c: choice frequencies (number)

Y10G3c choice codes								
Y10G3b choice codes	A	B	C	D	E	F	c9	Total
A	3%	4%	7%	1%	3%	2%	1%	21%
B	0%	6%	9%	1%	2%	1%	1%	19%
C	0%	3%	13%	0%	2%	1%	1%	20%
D	1%	6%	12%	3%	4%	2%	1%	27%
E	0%	2%	3%	0%	3%	1%	1%	9%
F	0%	0%	0%	0%	0%	0%	0%	1%
c9	0%	0%	0%	0%	0%	0%	3%	3%
Total	4%	21%	45%	5%	14%	6%	6%	100%

Table 6.1G-32 Y10G3b by Y10G3c: choice frequencies (percentage)

Y10G3c choice codes								
Y10G3a choice codes	A	B	C	D	E	F	c9	Total
A	49	88	157	28	72	33	24	451
B	1	81	75	2	13	9	6	187
C	2	37	270	3	31	11	11	365
D	3	48	60	30	23	11	10	185
E	2	37	57	7	44	5	7	159
F	1	23	59	2	23	15		123
c9		1	3				38	42
Total	58	315	681	72	206	84	96	1512

Table 6.1G-33 Y10G3a by Y10G3c: choice frequencies (number)

Y10G3c choice codes								
Y10G3a choice codes	A	B	C	D	E	F	c9	Total
A	3%	6%	10%	2%	5%	2%	2%	30%
B	0%	5%	5%	0%	1%	1%	0%	12%
C	0%	2%	18%	0%	2%	1%	1%	24%
D	0%	3%	4%	2%	2%	1%	1%	12%
E	0%	2%	4%	0%	3%	0%	0%	11%
F	0%	2%	4%	0%	2%	1%	0%	8%
c9	0%	0%	0%	0%	0%	0%	3%	3%
Total	4%	21%	45%	5%	14%	6%	6%	100%

Table 6.1G-34 Y10G3a by Y10G3c: choice frequencies (percentage)

Y10G3a: like best								
Y10G3d VR	A	B	C	D	E	F	c9	Overall mean
Average of Y10G3dA VR	0.20	0.41	0.48	0.38	0.47	0.29	0.07	0.35
Average of Y10G3dB VR	0.37	0.24	0.55	0.34	0.43	0.37	0.17	0.39
Average of Y10G3dC VR	0.64	0.70	0.91	0.55	0.67	0.72	0.31	0.70
Average of Y10G3dD VR	0.42	0.53	0.65	0.12	0.54	0.51	0.26	0.47
Average of Y10G3dE VR	0.62	0.53	0.66	0.51	0.91	0.63	0.31	0.63
Average of Y10G3dF VR	0.31	0.35	0.30	0.31	0.30	0.72	0.14	0.34
Total mean VR	2.56	2.76	3.55	2.22	3.31	3.24	1.26	2.88

Table 6.1G-35 Y10G3d by Y10G3a: validity rating

Y10G3b: own approach								
Y10G3d VR	A	B	C	D	E	F	c9	Overall mean
Average of Y10G3dA VR	0.18	0.43	0.43	0.36	0.41	0.50	0.08	0.35
Average of Y10G3dB VR	0.32	0.37	0.53	0.39	0.39	0.21	0.25	0.39
Average of Y10G3dC VR	0.62	0.74	0.92	0.63	0.67	0.64	0.31	0.70
Average of Y10G3dD VR	0.47	0.60	0.66	0.26	0.50	0.50	0.27	0.47
Average of Y10G3dE VR	0.60	0.59	0.68	0.59	0.84	0.79	0.35	0.63
Average of Y10G3dF VR	0.32	0.30	0.36	0.34	0.41	0.79	0.21	0.34
Total mean VR	2.52	3.03	3.57	2.58	3.23	3.43	1.48	2.88

Table 6.1G-36 Y10G3d by Y10G3b: validity rating

Y10G3c: best mark								
Y10G3d VR	A	B	C	D	E	F	c9	Overall mean
Average of Y10G3dA VR	0.09	0.37	0.38	0.33	0.35	0.33	0.24	0.35
Average of Y10G3dB VR	0.36	0.21	0.49	0.44	0.43	0.35	0.25	0.39
Average of Y10G3dC VR	0.41	0.62	0.83	0.44	0.67	0.64	0.48	0.70
Average of Y10G3dD VR	0.43	0.42	0.55	0.13	0.48	0.48	0.31	0.47
Average of Y10G3dE VR	0.48	0.62	0.62	0.49	0.83	0.62	0.50	0.63
Average of Y10G3dF VR	0.21	0.30	0.34	0.33	0.33	0.65	0.31	0.34
Total mean VR	1.98	2.54	3.21	2.17	3.09	3.07	2.09	2.88

Table 6.1G-37 Y10G3d by Y10G3c: validity rating

Frequencies for Items Y8G4a, Y9G4a, Y10G4a, Y10G4b, Y10G4c

Codes	Y10G4a					
	N Girls	N Boys	N All	% Girls	% Boys	% All
002	4	1	5	1%	0%	0%
003C	4	4	8	1%	1%	1%
003CHP	1		1	0%	0%	0%
004C	1	1	2	0%	0%	0%
004CHP	9	9	18	1%	1%	1%
034C	3		3	0%	0%	0%
204	2	1	3	0%	0%	0%
300	1	3	4	0%	0%	0%
303C		1	1	0%	0%	0%
333C	1	4	5	0%	1%	0%
334C	1	3	4	0%	0%	0%
342	1		1	0%	0%	0%
344C	11	20	31	1%	3%	2%
400	26	27	53	3%	4%	4%
400E	1		1	0%	0%	0%
402	9	4	13	1%	1%	1%
403C	2	3	5	0%	0%	0%
404	3	1	4	0%	0%	0%
404C	1	5	6	0%	1%	0%
404CHP		4	4	0%	1%	0%
422		2	2	0%	0%	0%
424	5	5	10	1%	1%	1%
433C	1		1	0%	0%	0%
433CP		1	1	0%	0%	0%
434	2		2	0%	0%	0%
434C	56	55	111	7%	7%	7%
434CE		1	1	0%	0%	0%
442	3	1	4	0%	0%	0%
444C	563	532	1095	73%	71%	72%
444CE	13	19	32	2%	3%	2%
444CP	4	2	6	1%	0%	0%
91	13	18	31	2%	2%	2%
92		1	1	0%	0%	0%
93	26	17	43	3%	2%	3%
Total	767	745	1512	100%	100%	100%

Table 6.1G-38 Y10G4a: full code frequencies

Y10G4a						
Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
002	4	1	5	1%	0%	0%
003C	5	4	9	1%	1%	1%
004C	10	10	20	1%	1%	1%
034C	3		3	0%	0%	0%
204	2	1	3	0%	0%	0%
300	1	3	4	0%	0%	0%
303C		1	1	0%	0%	0%
333C	1	4	5	0%	1%	0%
334C	1	3	4	0%	0%	0%
342	1		1	0%	0%	0%
344C	11	20	31	1%	3%	2%
400	27	27	54	4%	4%	4%
402	9	4	13	1%	1%	1%
403C	2	3	5	0%	0%	0%
404	3	1	4	0%	0%	0%
404C	1	9	10	0%	1%	1%
422		2	2	0%	0%	0%
424	5	5	10	1%	1%	1%
433C	1	1	2	0%	0%	0%
434	2		2	0%	0%	0%
434C	56	56	112	7%	8%	7%
442	3	1	4	0%	0%	0%
444C	580	553	1133	76%	74%	75%
c9	39	36	75	5%	5%	5%
Total	767	745	1512	100%	100%	100%

Table 6.1G-39 Y10G4a: semi-stripped code frequencies

Codes	Y9G4a						Y10G4a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
002				0%	0%	0%	4	1	5	1%	0%	0%
005	4	2	6	1%	0%	0%	15	14	29	2%	2%	2%
025	3		3	0%	0%	0%				0%	0%	0%
050		2	2	0%	0%	0%				0%	0%	0%
055		2	2	0%	0%	0%	3		3	0%	0%	0%
200		2	2	0%	0%	0%				0%	0%	0%
202	2		2	0%	0%	0%				0%	0%	0%
205				0%	0%	0%	2	1	3	0%	0%	0%
220	1		1	0%	0%	0%				0%	0%	0%
225	1	3	4	0%	0%	0%				0%	0%	0%
252		1	1	0%	0%	0%				0%	0%	0%
255	6	6	12	1%	1%	1%				0%	0%	0%
500	40	31	71	5%	4%	5%	28	30	58	4%	4%	4%
502	15	9	24	2%	1%	2%	9	4	13	1%	1%	1%
505		2	2	0%	0%	0%	6	14	20	1%	2%	1%
520	1	1	2	0%	0%	0%				0%	0%	0%
522	2	1	3	0%	0%	0%		2	2	0%	0%	0%
525	32	31	63	4%	4%	4%	5	5	10	1%	1%	1%
550	2	1	3	0%	0%	0%				0%	0%	0%
552	7	4	11	1%	1%	1%	4	1	5	1%	0%	0%
555	582	556	1138	76%	75%	75%	652	637	1289	85%	86%	85%
c9	69	91	160	9%	12%	11%	39	36	75	5%	5%	5%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-40 Y9G4a, Y10G4a: stripped and amalgamated code frequencies (3,4 changed to 5)

Scores	Y8G4a						Y9G4a						Y10G4a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	144	168	312	19%	23%	21%	82	107	189	11%	14%	13%	45	38	83	6%	5%	5%
1	191	154	345	25%	21%	23%	100	79	179	13%	11%	12%	51	43	94	7%	6%	6%
2	432	423	855	56%	57%	57%	585	559	1144	76%	75%	76%	671	664	1335	87%	89%	88%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-41 Y8G4a, Y9G4a, Y10G4a: score frequencies

Y8G4a scores	Y9G4a scores			
	0	1	2	Total
0	65	59	188	312
1	48	49	248	345
2	76	71	708	855
Total	189	179	1144	1512

Table 6.1G-42 Y8G4a by Y9G4a: score frequencies (number)

Y8G4a scores	Y9G4a scores			
	0	1	2	Total
0	4%	4%	12%	21%
1	3%	3%	16%	23%
2	5%	5%	47%	57%
Total	13%	12%	76%	100%

Table 6.1G-43 Y8G4a by Y9G4a: score frequencies (percentage)

Y9G4a scores	Y10G4a scores			
	0	1	2	Total
0	32	24	133	189
1	18	23	138	179
2	33	47	1064	1144
Total	83	94	1335	1512

Table 6.1G-44 Y9G4a by Y10G4a: score frequencies (number)

Y9G4a scores	Y10G4a scores			
	0	1	2	Total
0	2%	2%	9%	13%
1	1%	2%	9%	12%
2	2%	3%	70%	76%
Total	5%	6%	88%	100%

Table 6.1G-45 Y9G4a by Y10G4a: score frequencies (percentage)

Y8G4a scores	Y10G4a scores			
	0	1	2	Total
0	35	30	247	312
1	26	30	289	345
2	22	34	799	855
Total	83	94	1335	1512

Table 6.1G-46 Y8G4a by Y10G4a: score frequencies (number)

Y8G4a scores	Y10G4a scores			
	0	1	2	Total
0	2%	2%	16%	21%
1	2%	2%	19%	23%
2	1%	2%	53%	57%
Total	5%	6%	88%	100%

Table 6.1G-47 Y8G4a by Y10G4a: score frequencies (percentage)

Codes	Y9G4aA 'calculating angle u'						Y9G4aB 'calculating v+w'						Y9G4aC 'calculating angle v'					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	7	6	13	1%	1%	1%	61	46	107	8%	6%	7%	44	37	81	6%	5%	5%
2	10	12	22	1%	2%	1%	40	36	76	5%	5%	5%	26	15	41	3%	2%	3%
3	7	14	21	1%	2%	1%	4	10	14	1%	1%	1%	4	4	8	1%	1%	1%
4	674	622	1296	88%	83%	86%	593	562	1155	77%	75%	76%	624	598	1222	81%	80%	81%
c9	69	91	160	9%	12%	11%	69	91	160	9%	12%	11%	69	91	160	9%	12%	11%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-48 Y9G4aA, Y9G4aB, Y9G4aC: stripped code frequencies

Codes	Y10G4aA 'calculating angle a'						Y10G4aB 'calculating b+c'						Y10G4aC 'calculating angle c'					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	22	15	37	3%	2%	2%	64	64	128	8%	9%	8%	28	30	58	4%	4%	4%
2	2	1	3	0%	0%	0%	5	7	12	1%	1%	1%	17	8	25	2%	1%	2%
3	15	31	46	2%	4%	3%	64	64	128	8%	9%	8%	9	13	22	1%	2%	1%
4	689	662	1351	90%	89%	89%	595	574	1169	78%	77%	77%	674	658	1332	88%	88%	88%
c9	39	36	75	5%	5%	5%	39	36	75	5%	5%	5%	39	36	75	5%	5%	5%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-49 Y10G4aA, Y10G4aB, Y10G4aC: stripped code frequencies

Codes	Y10G4b						Y10G4c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	160	145	305	21%	19%	20%	10	5	15	1%	1%	1%
12	44	34	78	6%	5%	5%				0%	0%	0%
13	10	7	17	1%	1%	1%	2	1	3	0%	0%	0%
50	6	6	12	1%	1%	1%	4	4	8	1%	1%	1%
51	53	50	103	7%	7%	7%	50	47	97	7%	6%	6%
52	52	66	118	7%	9%	8%	54	70	124	7%	9%	8%
53	136	129	265	18%	17%	18%	181	185	366	24%	25%	24%
70	11	8	19	1%	1%	1%	5	2	7	1%	0%	0%
71	19	23	42	2%	3%	3%	17	6	23	2%	1%	2%
72	17	15	32	2%	2%	2%	1	6	7	0%	1%	0%
73	28	21	49	4%	3%	3%	46	20	66	6%	3%	4%
91	203	210	413	26%	28%	27%	368	366	734	48%	49%	49%
92		1	1	0%	0%	0%		1	1	0%	0%	0%
93	28	30	58	4%	4%	4%	29	32	61	4%	4%	4%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-50 Y10G4b, Y10G4c: stripped code frequencies

Codes	Y10G4b 'code 53: use of M and S strategies'					
	N Girls	N Boys	N All	% Girls	% Boys	% All
c53	42	38	80	31%	29%	30%
c53M	76	74	150	56%	57%	57%
c53S	18	17	35	13%	13%	13%
Subtotal	136	129	265	100%	100%	100%

Table 6.1G-51 Y10G4b: code 53 – use of M & S strategies

Scores	Y10G4b						Y10G4c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	462	441	903	60%	59%	60%	418	411	829	54%	55%	55%
0.5	72	73	145	9%	10%	10%	67	53	120	9%	7%	8%
1	69	81	150	9%	11%	10%	55	76	131	7%	10%	9%
2	164	150	314	21%	20%	21%	227	205	432	30%	28%	29%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-52 Y10G4b, Y10G4c: score frequencies

Y10G4b score	Y10G4c score				Total
	0	0.5	1	2	
0	631	73	61	138	903
0.5	60	18	16	51	145
1	61	12	20	57	150
2	77	17	34	186	314
Total	829	120	131	432	1512

Table 6.1G-53 Y10G4b by Y10G4c: score frequencies (number)

Y10G4b score	Y10G4c score				Total
	0	0.5	1	2	
0	42%	5%	4%	9%	60%
0.5	4%	1%	1%	3%	10%
1	4%	1%	1%	4%	10%
2	5%	1%	2%	12%	21%
Total	55%	8%	9%	29%	100%

Table 6.1G-54 Y10G4b by Y10G4c: score frequencies (percentage)

Frequencies for Items Y10HG4, Y10HG7

Y10HG4							Y10HG4							Y10HG4						
Codes	N Girls	N Boys	N All	% Girls	% Boys	% All	Codes	N Girls	N Boys	N All	% Girls	% Boys	% All	Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
110	4	4	8	1%	1%	1%	331N	1	1	2	0%	0%	0%	723P	1	1	2	0%	0%	0%
110N		2	2	0%	0%	0%	333	1	6	7	0%	1%	0%	723T		2	2	0%	0%	0%
111	118	92	210	15%	12%	14%	334	2	8	10	0%	1%	1%	723X	1		1	0%	0%	0%
111D		1	1	0%	0%	0%	334NT		1	1	0%	0%	0%	724	1		1	0%	0%	0%
111N	12	6	18	2%	1%	1%	500		2	2	0%	0%	0%	724T	13	4	17	2%	1%	1%
111X	1		1	0%	0%	0%	514T	6	2	8	1%	0%	1%	724X	1		1	0%	0%	0%
112X		2	2	0%	0%	0%	520	2		2	0%	0%	0%	730	6	3	9	1%	0%	1%
113	19	7	26	2%	1%	2%	522		1	1	0%	0%	0%	730B		1	1	0%	0%	0%
113NX	1		1	0%	0%	0%	523T	1		1	0%	0%	0%	731D		1	1	0%	0%	0%
113T	1	1	2	0%	0%	0%	524		1	1	0%	0%	0%	732	20	7	27	3%	1%	2%
113X		1	1	0%	0%	0%	530	1		1	0%	0%	0%	732N	2	1	3	0%	0%	0%
114	1	1	2	0%	0%	0%	532		1	1	0%	0%	0%	732X	1	1	2	0%	0%	0%
120		1	1	0%	0%	0%	533X		1	1	0%	0%	0%	733	3	5	8	0%	1%	1%
121	17	24	41	2%	3%	3%	534F	2		2	0%	0%	0%	733D		2	2	0%	0%	0%
121B	1	1	2	0%	0%	0%	534FN	2	1	3	0%	0%	0%	733DN	1	1	2	0%	0%	0%
121N	1		1	0%	0%	0%	534T	9	9	18	1%	1%	1%	733NT		1	1	0%	0%	0%
123	7	4	11	1%	1%	1%	534X	1		1	0%	0%	0%	733P		4	4	0%	1%	0%
123B	3		3	0%	0%	0%	700	21	41	62	3%	6%	4%	733T		3	3	0%	0%	0%
130	1		1	0%	0%	0%	710	1		1	0%	0%	0%	733X	8	5	13	1%	1%	1%
130N		1	1	0%	0%	0%	711D	17	17	34	2%	2%	2%	734FN		1	1	0%	0%	0%
131	20	33	53	3%	4%	4%	711DN		1	1	0%	0%	0%	734FNT	1		1	0%	0%	0%
131B	2		2	0%	0%	0%	712		4	4	0%	1%	0%	734NT	21	20	41	3%	3%	3%
131N	1	3	4	0%	0%	0%	712D	7	3	10	1%	0%	1%	734NX	2	4	6	0%	1%	0%
132		1	1	0%	0%	0%	713	4		4	1%	0%	0%	734P	2	3	5	0%	0%	0%
133	1	1	2	0%	0%	0%	713D	14	26	40	2%	3%	3%	734PT		1	1	0%	0%	0%
133B	1		1	0%	0%	0%	713DN		1	1	0%	0%	0%	734T	84	74	158	11%	10%	10%
133T	1		1	0%	0%	0%	713N	1		1	0%	0%	0%	734X	12	7	19	2%	1%	1%
310	1	1	2	0%	0%	0%	713T	4	3	7	1%	0%	0%	811	6	3	9	1%	0%	1%
310N		1	1	0%	0%	0%	713X	1	1	2	0%	0%	0%	813	1		1	0%	0%	0%
311	10	8	18	1%	1%	1%	714T	34	26	60	4%	3%	4%	821	3	2	5	0%	0%	0%
313	1	1	2	0%	0%	0%	714X	2	2	4	0%	0%	0%	821D		1	1	0%	0%	0%
321	5	4	9	1%	1%	1%	720	3	1	4	0%	0%	0%	824		1	1	0%	0%	0%
323	1	2	3	0%	0%	0%	721D		1	1	0%	0%	0%	830		1	1	0%	0%	0%
324	1	2	3	0%	0%	0%	722	8	8	16	1%	1%	1%	831	3	1	4	0%	0%	0%
330		2	2	0%	0%	0%	723	22	24	46	3%	3%	3%	91	129	147	276	17%	20%	18%
330N	2		2	0%	0%	0%	723B	1		1	0%	0%	0%	92		2	2	0%	0%	0%
331	4	7	11	1%	1%	1%	723D		3	3	0%	0%	0%	93	39	25	64	5%	3%	4%
														Total	767	745	1512	100%	100%	100%

Table 6.1G-55 Y10HG4: full code frequencies

Y10HG4

Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
110	4	6	10	1%	1%	1%
111	131	99	230	17%	13%	15%
112		2	2	0%	0%	0%
113	21	9	30	3%	1%	2%
114	1	1	2	0%	0%	0%
120		1	1	0%	0%	0%
121	19	25	44	2%	3%	3%
123	10	4	14	1%	1%	1%
130	1	1	2	0%	0%	0%
131	23	36	59	3%	5%	4%
132		1	1	0%	0%	0%
133	3	1	4	0%	0%	0%
310	1	2	3	0%	0%	0%
311	10	8	18	1%	1%	1%
313	1	1	2	0%	0%	0%
321	5	4	9	1%	1%	1%
323	1	2	3	0%	0%	0%
324	1	2	3	0%	0%	0%
330	2	2	4	0%	0%	0%
331	5	8	13	1%	1%	1%
333	1	6	7	0%	1%	0%
334	2	9	11	0%	1%	1%
500		2	2	0%	0%	0%
514	6	2	8	1%	0%	1%
520	2		2	0%	0%	0%
522		1	1	0%	0%	0%
523	1		1	0%	0%	0%
524		1	1	0%	0%	0%

Table 6.1G-56 Y10HG4: stripped code frequencies

Y10HG4

Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
530	1		1	0%	0%	0%
532		1	1	0%	0%	0%
533		1	1	0%	0%	0%
534	14	10	24	2%	1%	2%
700	21	41	62	3%	6%	4%
710	1		1	0%	0%	0%
711	17	18	35	2%	2%	2%
712	7	7	14	1%	1%	1%
713	24	31	55	3%	4%	4%
714	36	28	64	5%	4%	4%
720	3	1	4	0%	0%	0%
721		1	1	0%	0%	0%
722	8	8	16	1%	1%	1%
723	25	30	55	3%	4%	4%
724	15	4	19	2%	1%	1%
730	6	4	10	1%	1%	1%
731		1	1	0%	0%	0%
732	23	9	32	3%	1%	2%
733	12	21	33	2%	3%	2%
734	122	110	232	16%	15%	15%
811	6	3	9	1%	0%	1%
813	1		1	0%	0%	0%
821	3	3	6	0%	0%	0%
824		1	1	0%	0%	0%
830		1	1	0%	0%	0%
831	3	1	4	0%	0%	0%
c9	168	174	342	22%	23%	23%
Total	767	745	1512	100%	100%	100%

Y10HG4

Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	213	186	399	28%	25%	26%
c3	29	44	73	4%	6%	5%
c5	24	18	42	3%	2%	3%
c7	320	314	634	42%	42%	42%
c8	13	9	22	2%	1%	1%
c9	168	174	342	22%	23%	23%
Total	767	745	1512	100%	100%	100%

Table 6.1G-57 Y10HG4: broad code frequencies

Y10HG7

Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
110	2		2	0%	0%	0%
111	6	3	9	1%	0%	1%
500		1	1	0%	0%	0%
510		1	1	0%	0%	0%
521P	1		1	0%	0%	0%
700	98	103	201	13%	14%	13%
701	2		2	0%	0%	0%
702	3	3	6	0%	0%	0%
702S		3	3	0%	0%	0%
710	32	23	55	4%	3%	4%
710S		1	1	0%	0%	0%
711	11	16	27	1%	2%	2%
712	2	1	3	0%	0%	0%
712S	2		2	0%	0%	0%
720	77	65	142	10%	9%	9%
720C		1	1	0%	0%	0%
720S	9	4	13	1%	1%	1%
721	54	39	93	7%	5%	6%
721S	1	2	3	0%	0%	0%
722	5	5	10	1%	1%	1%
722C	2		2	0%	0%	0%
722P		1	1	0%	0%	0%
722S	6	5	11	1%	1%	1%
730	1		1	0%	0%	0%
730S	1		1	0%	0%	0%
731	3	1	4	0%	0%	0%
731S	1		1	0%	0%	0%
732	3	1	4	0%	0%	0%
732C	1	1	2	0%	0%	0%
732S	7	2	9	1%	0%	1%
733	3	6	9	0%	1%	1%
733C	5	3	8	1%	0%	1%
733P	1		1	0%	0%	0%
733S	34	23	57	4%	3%	4%
91	317	338	655	41%	45%	43%
92		1	1	0%	0%	0%
93	77	92	169	10%	12%	11%
Total	767	745	1512	100%	100%	100%

Table 6.1G-58 Y10HG7: full code frequencies

Y10HG7						
Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
110	2		2	0%	0%	0%
111	6	3	9	1%	0%	1%
500		1	1	0%	0%	0%
510		1	1	0%	0%	0%
521	1		1	0%	0%	0%
700	98	103	201	13%	14%	13%
701	2		2	0%	0%	0%
702	3	6	9	0%	1%	1%
710	32	24	56	4%	3%	4%
711	11	16	27	1%	2%	2%
712	4	1	5	1%	0%	0%
720	86	70	156	11%	9%	10%
721	55	41	96	7%	6%	6%
722	13	11	24	2%	1%	2%
730	2		2	0%	0%	0%
731	4	1	5	1%	0%	0%
732	11	4	15	1%	1%	1%
733	43	32	75	6%	4%	5%
c9	394	431	825	51%	58%	55%
Total	767	745	1512	100%	100%	100%

Table 6.1G-59 Y10HG7: stripped code frequencies

Y10HG7						
Codes	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	8	3	11	1%	0%	1%
c5	1	2	3	0%	0%	0%
c7	364	309	673	47%	41%	45%
c9	394	431	825	51%	58%	55%
Total	767	745	1512	100%	100%	100%

Table 6.1G-60 Y10HG7: broad code frequencies

Y10HG4							Y10HG7					
Scores	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	210	235	445	27%	32%	29%	494	535	1029	64%	72%	68%
1	302	271	573	39%	36%	38%	51	44	95	7%	6%	6%
2	62	84	146	8%	11%	10%	179	134	313	23%	18%	21%
3	193	155	348	25%	21%	23%	43	32	75	6%	4%	5%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1G-61 Y10HG4, Y10HG7: score frequencies

Y10HG7 scores						Y10HG7 scores					
Y10HG4 scores	0	1	2	3	Total	Y10HG4 scores	0	1	2	3	Total
0	379	12	49	5	445	0	25%	1%	3%	0%	29%
1	385	51	115	22	573	1	25%	3%	8%	1%	38%
2	94	10	30	12	146	2	6%	1%	2%	1%	10%
3	171	22	119	36	348	3	11%	1%	8%	2%	23%
Total	1029	95	313	75	1512	Total	68%	6%	21%	5%	100%

Table 6.1G-62 Y10HG4 by Y10HG7: score frequencies (number and percent)

6.1L Descriptive Statistics for LOGIC items

Frequencies for Items Y8LA1, Y9LA1, Y10LA1

Codes	Y8L1a						Y9LA1a						Y10LA1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	556	496	1052	72%	67%	70%	498	434	932	65%	58%	62%	443	399	842	58%	54%	56%
31	118	117	235	15%	16%	16%	115	110	225	15%	15%	15%	109	114	223	14%	15%	15%
32	88	123	211	11%	17%	14%	134	162	296	17%	22%	20%	205	221	426	27%	30%	28%
91	4	9	13	1%	1%	1%	14	28	42	2%	4%	3%	8	9	17	1%	1%	1%
92				0%	0%	0%	6	6	12	1%	1%	1%				0%	0%	0%
93	1		1	0%	0%	0%		5	5	0%	1%	0%	2	2	4	0%	0%	0%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-01 Y8L1a, Y9LA1a, Y10LA1a: full code frequencies

Codes	Y8L1a						Y9LA1a						Y10LA1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	556	496	1052	72%	67%	70%	498	434	932	65%	58%	62%	443	399	842	58%	54%	56%
c3	206	240	446	27%	32%	29%	249	272	521	32%	37%	34%	314	335	649	41%	45%	43%
c9	5	9	14	1%	1%	1%	20	39	59	3%	5%	4%	10	11	21	1%	1%	1%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-02 Y8L1a, Y9LA1a, Y10LA1a: broad code frequencies

Y9LA1a broad codes				
Y8L1a broad codes	10	c3	c9	Total
10	716	300	36	1052
c3	208	216	22	446
c9	8	5	1	14
Total	932	521	59	1512

Table 6.1L-03 Y8L1a by Y9LA1a: broad code frequencies (number)

Y9LA1a broad codes							
Y8L1a broad codes	10	c3	c9	Total		N	%
10	47%	20%	2%	70%	Progress	300	20
c3	14%	14%	1%	29%	Same	932	62
c9	1%	0%	0%	1%	Regress	208	14
					c9	72	5
Total	62%	34%	4%	100%	Total	1512	100

Table 6.1L-04 Y8L1a by Y9LA1a: broad code frequencies (percentage) and progress

Y10LA1a broad codes				
Y9LA1a broad codes	10	c3	c9	Total
10	637	286	9	932
c3	178	333	10	521
c9	27	30	2	59
Total	842	649	21	1512

Table 6.1L-05 Y9LA1a by Y10LA1a: broad code frequencies (number)

Y10LA1a broad codes					
Y9LA1a broad codes	10	c3	c9	Total	
10	42%	19%	1%	62%	Progress
c3	12%	22%	1%	34%	Same
c9	2%	2%	0%	4%	Regress
Total	56%	43%	1%	100%	c9
					Total
					N
					%

Table 6.1L-06 Y9LA1a by Y10LA1a: broad code frequencies (percentage) and progress

Y10LA1a broad codes			
Y8L1a broad codes	10	c3	c9
10	654	386	12
c3	181	257	8
c9	7	6	1
Total	842	649	21

Table 6.1L-07 Y8L1a by Y10LA1a: broad code frequencies (number)

Y10LA1a broad codes					
Y8L1a broad codes	10	c3	c9	Total	
10	43%	26%	1%	70%	Progress
c3	12%	17%	1%	29%	Same
c9	0%	0%	0%	1%	Regress
Total	56%	43%	1%	100%	c9
					Total
					N
					%

Table 6.1L-08 Y8L1a by Y10LA1a: broad code frequencies (percentage) and progress

Scores	Y8L1a						Y9LA1a						Y10LA1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	561	505	1066	73%	68%	71%	518	473	991	68%	63%	66%	453	410	863	59%	55%	57%
1	118	117	235	15%	16%	16%	115	110	225	15%	15%	15%	109	114	223	14%	15%	15%
2	88	123	211	11%	17%	14%	134	162	296	17%	22%	20%	205	221	426	27%	30%	28%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-09 Y8L1a, Y9LA1a, Y10LA1a: score frequencies

Y9LA1a scores			
Y8L1a scores	0	1	2
0	761	142	163
1	115	55	65
2	115	28	68
Total	991	225	296

Table 6.1L-10 Y8L1a by Y9LA1a: score frequencies (number)

Y9LA1a scores					
Y8L1a scores	0	1	2	Total	
0	50%	9%	11%	71%	Progress
1	8%	4%	4%	16%	Same
2	8%	2%	4%	14%	Regress
Total	66%	15%	20%	100%	Total
					N
					%

Table 6.1L-11 Y8L1a by Y9LA1a: score frequencies (percentage) and progress

Y9LA1a scores	Y10LA1a scores			Total
	0	1	2	
0	675	137	179	991
1	89	43	93	225
2	99	43	154	296
Total	863	223	426	1512

Table 6.1L-12 Y9LA1a by Y10LA1a: score frequencies (number)

Y9LA1a scores	Y10LA1a scores			Total		N	%
	0	1	2				
0	45%	9%	12%	66%	Progress	409	27
1	6%	3%	6%	15%	Same	872	58
2	7%	3%	10%	20%	Regress	231	15
Total	57%	15%	28%	100%	Total	1512	100

Table 6.1L-13 Y9LA1a by Y10LA1a: score frequencies (percentage) and progress

Y8L1a scores	Y10LA1a scores			Total
	0	1	2	
0	674	154	238	1066
1	96	37	102	235
2	93	32	86	211
Total	863	223	426	1512

Table 6.1L-14 Y8L1a by Y10LA1a: score frequencies (number)

Y8L1a scores	Y10LA1a scores			Total		N	%
	0	1	2				
0	45%	10%	16%	71%	Progress	494	33
1	6%	2%	7%	16%	Same	797	53
2	6%	2%	6%	14%	Regress	221	15
Total	57%	15%	28%	100%	Total	1512	100

Table 6.1L-15 Y8L1a by Y10LA1a: score frequencies (percentage) and progress

Codes	Y8L1b						Y9LA1b						Y10LA1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	331	322	653	43%	43%	43%	144	152	296	19%	20%	20%	127	125	252	17%	17%	17%
30	401	381	782	52%	51%	52%	574	506	1080	75%	68%	71%	611	571	1182	80%	77%	78%
91	8	8	16	1%	1%	1%	16	30	46	2%	4%	3%	13	19	32	2%	3%	2%
92				0%	0%	0%	6	6	12	1%	1%	1%				0%	0%	0%
93	27	34	61	4%	5%	4%	27	51	78	4%	7%	5%	16	30	46	2%	4%	3%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-16 Y8L1b, Y9LA1b, Y10LA1b: full code frequencies

Codes	Y8L1b						Y9LA1b						Y10LA1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	331	322	653	43%	43%	43%	144	152	296	19%	20%	20%	127	125	252	17%	17%	17%
30	401	381	782	52%	51%	52%	574	506	1080	75%	68%	71%	611	571	1182	80%	77%	78%
c9	35	42	77	5%	6%	5%	49	87	136	6%	12%	9%	29	49	78	4%	7%	5%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-17 Y8L1b, Y9LA1b, Y10LA1b: broad code frequencies

Y8L1b broad codes	Y9LA1b broad codes			Total
	10	30	c9	
10	177	403	73	653
30	99	622	61	782
c9	20	55	2	77
Total	296	1080	136	1512

Table 6.1L-18 Y8L1b by Y9LA1b: broad code frequencies (number)

Y8L1b broad codes	Y9LA1b broad codes			Total		N	%
	10	30	c9				
10	12%	27%	5%	43%	Progress	403	27
30	7%	41%	4%	52%	Same	799	53
c9	1%	4%	0%	5%	Regress	99	7
Total	20%	71%	9%	100%	c9	211	14
					Total	1512	100

Table 6.1L-19 Y8L1b by Y9LA1b: broad code frequencies (percentage) and progress

Y9LA1b broad codes	Y10LA1b broad codes			Total
	10	30	c9	
10	95	179	22	296
30	132	910	38	1080
c9	25	93	18	136
Total	252	1182	78	1512

Table 6.1L-20 Y9LA1b by Y10LA1b: broad code frequencies (number)

Y9LA1b broad codes	Y10LA1b broad codes			Total		N	%
	10	30	c9				
10	6%	12%	1%	20%	Progress	179	12
30	9%	60%	3%	71%	Same	1005	66
c9	2%	6%	1%	9%	Regress	132	9
Total	17%	78%	5%	100%	c9	196	13
					Total	1512	100

Table 6.1L-21 Y9LA1b by Y10LA1b: broad code frequencies (percentage) and progress

Y8L1b broad codes	Y10LA1b broad codes			Total
	10	30	c9	
10	153	461	39	653
30	80	668	34	782
c9	19	53	5	77
Total	252	1182	78	1512

Table 6.1L-22 Y8L1b by Y10LA1b: broad code frequencies (number)

Y8L1b broad codes	Y10LA1b			Total		N	%
	10	30	c9				
10	10%	30%	3%	43%	Progress	461	30
30	5%	44%	2%	52%	Same	821	54
c9	1%	4%	0%	5%	Regress	80	5
Total	17%	78%	5%	100%	c9	150	10
					Total	1512	100

Table 6.1L-23 Y8L1b by Y10LA1b: broad code frequencies (percentage)

Scores	Y8L1b						Y9LA1b						Y10LA1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	366	364	730	48%	49%	48%	193	239	432	25%	32%	29%	156	174	330	20%	23%	22%
2	401	381	782	52%	51%	52%	574	506	1080	75%	68%	71%	611	571	1182	80%	77%	78%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-24 Y8L1b, Y9LA1b, Y10LA1b: score frequencies

Y8L1b score	Y9LA1b score		
	0	2	Total
0	272	458	730
2	160	622	782
Total	432	1080	1512

Table 6.1L-25 Y8L1b by Y9LA1b: score frequencies (number)

		Y9LA1b score			N	%
Y8L1b score	0	2	Total	Progress	458	30
0	18%	30%	48%	Same	894	59
2	11%	41%	52%	Regress	160	11
Total	29%	71%	100%	Total	1512	100

Table 6.1L-26 Y8L1b by Y9LA1b: score frequencies (percentage)

Y9LA1b score	Y10LA1b score		
	0	2	Total
0	160	272	432
2	170	910	1080
Total	330	1182	1512

Table 6.1L-27 Y9LA1b by Y10LA1b: score frequencies (number)

Y10LA1b score				N	%	
Y9LA1b score	0	2	Total	Progress	272	18
0	11%	18%	29%	Same	1070	71
2	11%	60%	71%	Regress	170	11
Total	22%	78%	100%	Total	1512	100

Table 6.1L-28 Y9LA1b by Y10LA1b: score frequencies (percentage) and progress

Y8L1b score	Y10LA1b score		
	0	2	Total
0	216	514	730
2	114	668	782
Total	330	1182	1512

Table 6.1L-29 Y8L1b by Y10LA1b: score frequencies (number)

		Y10LA1b score			N	%
Y8L1b score	0	2	Total	Progress	514	34
0	14%	34%	48%	Same	884	58
2	8%	44%	52%	Regress	114	8
Total	22%	78%	100%	Total	1512	100

Table 6.1L-30 Y8L1b by Y10LA1b: score frequencies (percentage) and progress

Codes	Y8L1c						Y9LA1c						Y10LA1c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	76	82	158	10%	11%	10%	72	100	172	9%	13%	11%	61	83	144	8%	11%	10%
11L				0%	0%	0%				0%	0%	0%	2		2	0%	0%	0%
11S	30	13	43	4%	2%	3%	15	8	23	2%	1%	2%	7	6	13	1%	1%	1%
13	18	27	45	2%	4%	3%	16	40	56	2%	5%	4%	18	26	44	2%	3%	3%
13S	1	3	4	0%	0%	0%		2	2	0%	0%	0%	1		1	0%	0%	0%
14	44	48	92	6%	6%	6%	22	20	42	3%	3%	3%	23	13	36	3%	2%	2%
14L				0%	0%	0%				0%	0%	0%	1		1	0%	0%	0%
21	14	6	20	2%	1%	1%	7	3	10	1%	0%	1%	7	3	10	1%	0%	1%
22	146	122	268	19%	16%	18%	135	109	244	18%	15%	16%	92	71	163	12%	10%	11%
22L				0%	0%	0%				0%	0%	0%	1		1	0%	0%	0%
22S	7	2	9	1%	0%	1%	1		1	0%	0%	0%	1		1	0%	0%	0%
23	14	20	34	2%	3%	2%	15	11	26	2%	1%	2%	9	4	13	1%	1%	1%
31	54	73	127	7%	10%	8%	55	77	132	7%	10%	9%	82	88	170	11%	12%	11%
32	181	174	355	24%	23%	23%	208	185	393	27%	25%	26%	229	282	511	30%	38%	34%
32L				0%	0%	0%				0%	0%	0%	2	1	3	0%	0%	0%
41	10	9	19	1%	1%	1%	13	6	19	2%	1%	1%	15	13	28	2%	2%	2%
41S		1	1	0%	0%	0%				0%	0%	0%				0%	0%	0%
42	4	16	20	1%	2%	1%	8	10	18	1%	1%	1%	5	3	8	1%	0%	1%
43	12	13	25	2%	2%	2%	8	9	17	1%	1%	1%	14	5	19	2%	1%	1%
44	42	32	74	5%	4%	5%	57	50	107	7%	7%	7%	93	57	150	12%	8%	10%
44L		1	1	0%	0%	0%		1	1	0%	0%	0%	2	2	4	0%	0%	0%
91	29	33	62	4%	4%	4%	64	66	130	8%	9%	9%	50	49	99	7%	7%	7%
92	1	2	3	0%	0%	0%	9	9	18	1%	1%	1%				0%	0%	0%
93	81	67	148	11%	9%	10%	62	39	101	8%	5%	7%	47	39	86	6%	5%	6%
93L				0%	0%	0%				0%	0%	0%	5		5	1%	0%	0%
93S	3	1	4	0%	0%	0%				0%	0%	0%				0%	0%	0%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-31 Y8L1c, Y9LA1c, Y10LA1c: full code frequencies

Codes	Y8L1c						Y9LA1c						Y10LA1c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	106	95	201	14%	13%	13%	87	108	195	11%	14%	13%	70	89	159	9%	12%	11%
13	19	30	49	2%	4%	3%	16	42	58	2%	6%	4%	19	26	45	2%	3%	3%
14	44	48	92	6%	6%	6%	22	20	42	3%	3%	3%	24	13	37	3%	2%	2%
21	14	6	20	2%	1%	1%	7	3	10	1%	0%	1%	7	3	10	1%	0%	1%
22	153	124	277	20%	17%	18%	136	109	245	18%	15%	16%	94	71	165	12%	10%	11%
23	14	20	34	2%	3%	2%	15	11	26	2%	1%	2%	9	4	13	1%	1%	1%
31	54	73	127	7%	10%	8%	55	77	132	7%	10%	9%	82	88	170	11%	12%	11%
32	181	174	355	24%	23%	23%	208	185	393	27%	25%	26%	231	283	514	30%	38%	34%
41	10	10	20	1%	1%	1%	13	6	19	2%	1%	1%	15	13	28	2%	2%	2%
42	4	16	20	1%	2%	1%	8	10	18	1%	1%	1%	5	3	8	1%	0%	1%
43	12	13	25	2%	2%	2%	8	9	17	1%	1%	1%	14	5	19	2%	1%	1%
44	42	33	75	5%	4%	5%	57	51	108	7%	7%	7%	95	59	154	12%	8%	10%
91	29	33	62	4%	4%	4%	64	66	130	8%	9%	9%	50	49	99	7%	7%	7%
92	1	2	3	0%	0%	0%	9	9	18	1%	1%	1%				0%	0%	0%
93	84	68	152	11%	9%	10%	62	39	101	8%	5%	7%	52	39	91	7%	5%	6%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-32 Y8L1c, Y9LA1c, Y10LA1c: stripped code frequencies

Codes	Y8L1c						Y9LA1c						Y10LA1c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	169	173	342	22%	23%	23%	125	170	295	16%	23%	20%	113	128	241	15%	17%	16%
c2	181	150	331	24%	20%	22%	158	123	281	21%	17%	19%	110	78	188	14%	10%	12%
c3	235	247	482	31%	33%	32%	263	262	525	34%	35%	35%	313	371	684	41%	50%	45%
c4	68	72	140	9%	10%	9%	86	76	162	11%	10%	11%	129	80	209	17%	11%	14%
c9	114	103	217	15%	14%	14%	135	114	249	18%	15%	16%	102	88	190	13%	12%	13%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-33 Y8L1c, Y9LA1c, Y10LA1c: broad code frequencies

Y8L1c broad codes	Y9LA1c broad codes					
	c1	c2	c3	c4	c9	Total
c1	80	70	101	18	73	342
c2	62	75	110	35	49	331
c3	84	80	207	57	54	482
c4	24	26	45	30	15	140
c9	45	30	62	22	58	217
Total	295	281	525	162	249	1512

Table 6.1L-34 Y8L1c by Y9LA1c: broad code frequencies (number)

Y8L1c broad codes	Y9LA1c broad codes					
	c1	c2	c3	c4	c9	Total
c1	5%	5%	7%	1%	5%	23%
c2	4%	5%	7%	2%	3%	22%
c3	6%	5%	14%	4%	4%	32%
c4	2%	2%	3%	2%	1%	9%
c9	3%	2%	4%	1%	4%	14%
Total	20%	19%	35%	11%	16%	100%

	N	%
Progress	391	26
Same	392	26
Regress	321	21
c9	408	27
Total	1512	100

Table 6.1L-35 Y8L1c by Y9LA1c: broad code frequencies (percentage) and progress

Y10LA1c broad codes						
Y9LA1c broad codes	c1	c2	c3	c4	c9	Total
c1	69	53	103	19	51	295
c2	30	51	121	42	37	281
c3	61	49	296	69	50	525
c4	18	7	62	59	16	162
c9	63	28	102	20	36	249
Total	241	188	684	209	190	1512

Table 6.1L-36 Y9LA1c by Y10LA1c: broad code frequencies (number)

Y10LA1c broad codes						
Y9LA1c broad codes	c1	c2	c3	c4	c9	Total
c1	5%	4%	7%	1%	3%	20%
c2	2%	3%	8%	3%	2%	19%
c3	4%	3%	20%	5%	3%	35%
c4	1%	0%	4%	4%	1%	11%
c9	4%	2%	7%	1%	2%	16%
Total	16%	12%	45%	14%	13%	100%

	N	%
Progress	407	27
Same	475	31
Regress	227	15
c9	403	27
Total	1512	100

Table 6.1L-37 Y9LA1c by Y10LA1c: broad code frequencies (percentage) and progress

Y10LA1c broad codes						
Y8L1c broad codes	c1	c2	c3	c4	c9	Total
c1	75	40	148	33	46	342
c2	57	50	148	39	37	331
c3	59	47	250	72	54	482
c4	11	14	56	42	17	140
c9	39	37	82	23	36	217
Total	241	188	684	209	190	1512

Table 6.1L-38 Y8L1c by Y10LA1c: broad code frequencies (number)

Y10LA1c broad codes						
Y8L1c broad codes	c1	c2	c3	c4	c9	Total
c1	5%	3%	10%	2%	3%	23%
c2	4%	3%	10%	3%	2%	22%
c3	4%	3%	17%	5%	4%	32%
c4	1%	1%	4%	3%	1%	9%
c9	3%	2%	5%	2%	2%	14%
Total	16%	12%	45%	14%	13%	100%

	N	%
Progress	480	32
Same	417	28
Regress	244	16
c9	371	25
Total	1512	100

Table 6.1L-39 Y8L1c by Y10LA1c: broad code frequencies (percentage) and progress

Scores	Y8L1c						Y9LA1c						Y10LA1c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	284	277	561	37%	37%	37%	260	284	544	34%	38%	36%	215	216	431	28%	29%	29%
2	180	149	329	23%	20%	22%	158	123	281	21%	17%	19%	110	78	188	14%	10%	12%
2.5	54	73	127	7%	10%	8%	55	77	132	7%	10%	9%	82	88	170	11%	12%	11%
3	249	246	495	32%	33%	33%	294	261	555	38%	35%	37%	360	363	723	47%	49%	48%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-40 Y8L1c, Y9LA1c, Y10LA1c: score frequencies

Y8L1c score	Y9LA1c score				Total
	0	2	2.5	3	
0	257	100	48	156	561
2	110	75	18	126	329
2.5	44	13	26	44	127
3	133	93	40	229	495
Total	544	281	132	555	1512

Table 6.1L-41 Y8L1c by Y9LA1c: score frequencies (number)

Y8L1c score	Y9LA1c score				Total
	0	2	2.5	3	
0	17%	7%	3%	10%	37%
2	7%	5%	1%	8%	22%
2.5	3%	1%	2%	3%	8%
3	9%	6%	3%	15%	33%
Total	36%	19%	9%	37%	100%

Table 6.1L-42 Y8L1c by Y9LA1c: score frequencies (percentage) and progress

	N	%
Progress	492	33
Same	587	39
Regress	433	29
Total	1512	100

Y9LA1c score	Y10LA1c score				Total
	0	2	2.5	3	
0	219	81	53	191	544
2	67	51	39	124	281
2.5	31	21	20	60	132
3	114	35	58	348	555
Total	431	188	170	723	1512

Table 6.1L-43 Y9LA1c by Y10LA1c: score frequencies (number)

Y9LA1c score	Y10LA1c score				Total
	0	2	2.5	3	
0	14%	5%	4%	13%	36%
2	4%	3%	3%	8%	19%
2.5	2%	1%	1%	4%	9%
3	8%	2%	4%	23%	37%
Total	29%	12%	11%	48%	100%

Table 6.1L-44 Y9LA1c by Y10LA1c: score frequencies (percentage) and progress

	N	%
Progress	548	36
Same	638	42
Regress	326	22
Total	1512	100

Y8L1c score	Y10LA1c score				Total
	0	2	2.5	3	
0	196	79	67	219	561
2	94	48	23	164	329
2.5	33	16	23	55	127
3	108	45	57	285	495
Total	431	188	170	723	1512

Table 6.1L-45 Y8L1c by Y10LA1c: score frequencies (number)

Y8L1c score	Y10LA1c score				Total
	0	2	2.5	3	
0	13%	5%	4%	14%	37%
2	6%	3%	2%	11%	22%
2.5	2%	1%	2%	4%	8%
3	7%	3%	4%	19%	33%
Total	29%	12%	11%	48%	100%

Table 6.1L-46 Y8L1c by Y10LA1c: score frequencies (percentage) and progress

	N	%
Progress	607	40
Same	552	37
Regress	353	23
Total	1512	100

Codes	Y8L1d						Y9LA1d						Y10LA1d					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	119	132	251	16%	18%	17%	118	130	248	15%	17%	16%	101	101	202	13%	14%	13%
11L				0%	0%	0%				0%	0%	0%	1		1	0%	0%	0%
11S	99	82	181	13%	11%	12%	73	49	122	10%	7%	8%	89	60	149	12%	8%	10%
13	93	117	210	12%	16%	14%	91	132	223	12%	18%	15%	79	126	205	10%	17%	14%
13S	70	40	110	9%	5%	7%	42	25	67	5%	3%	4%	24	28	52	3%	4%	3%
21	86	91	177	11%	12%	12%	70	72	142	9%	10%	9%	71	95	166	9%	13%	11%
21L				0%	0%	0%				0%	0%	0%	4		4	1%	0%	0%
21S	25	21	46	3%	3%	3%	21	8	29	3%	1%	2%	8	10	18	1%	1%	1%
22	56	36	92	7%	5%	6%	64	46	110	8%	6%	7%	63	46	109	8%	6%	7%
22S	9	6	15	1%	1%	1%	14	6	20	2%	1%	1%	12	6	18	2%	1%	1%
22SL				0%	0%	0%				0%	0%	0%	1		1	0%	0%	0%
23		1	1	0%	0%	0%	1		1	0%	0%	0%				0%	0%	0%
23S		1	1	0%	0%	0%				0%	0%	0%				0%	0%	0%
24	16	27	43	2%	4%	3%	20	22	42	3%	3%	3%	27	15	42	4%	2%	3%
24L				0%	0%	0%				0%	0%	0%	1		1	0%	0%	0%
24S	4	3	7	1%	0%	0%	3	5	8	0%	1%	1%	4	6	10	1%	1%	1%
41	7	3	10	1%	0%	1%	7	5	12	1%	1%	1%	2	2	4	0%	0%	0%
41S		1	1	0%	0%	0%	2	1	3	0%	0%	0%	1	1	2	0%	0%	0%
42	4	4	8	1%	1%	1%	5	3	8	1%	0%	1%	3	5	8	0%	1%	1%
42S	1		1	0%	0%	0%	1		1	0%	0%	0%				0%	0%	0%
43	11	19	30	1%	3%	2%	13	10	23	2%	1%	2%	4	5	9	1%	1%	1%
43L				0%	0%	0%				0%	0%	0%		1	1	0%	0%	0%
43S	1	2	3	0%	0%	0%	1	1	2	0%	0%	0%	2	1	3	0%	0%	0%
44	42	50	92	5%	7%	6%	67	82	149	9%	11%	10%	115	111	226	15%	15%	15%
44L		1	1	0%	0%	0%	1	2	3	0%	0%	0%	5	4	9	1%	1%	1%
44S	8	3	11	1%	0%	1%	14	8	22	2%	1%	1%	6	5	11	1%	1%	1%
50	1	1	2	0%	0%	0%		3	3	0%	0%	0%	3	4	7	0%	1%	0%
91	40	46	86	5%	6%	6%	79	78	157	10%	10%	10%	90	63	153	12%	8%	10%
92	1	3	4	0%	0%	0%	16	12	28	2%	2%	2%				0%	0%	0%
93	58	46	104	8%	6%	7%	34	39	73	4%	5%	5%	42	44	86	5%	6%	6%
93L				0%	0%	0%				0%	0%	0%	4		4	1%	0%	0%
93S	16	9	25	2%	1%	2%	10	6	16	1%	1%	1%	5	6	11	1%	1%	1%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-47 Y8L1d, Y9LA1d, Y10LA1d: full code frequencies

Codes	Y8L1d						Y9LA1d						Y10LA1d					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	218	214	432	28%	29%	29%	191	179	370	25%	24%	24%	191	161	352	25%	22%	23%
13	163	157	320	21%	21%	21%	133	157	290	17%	21%	19%	103	154	257	13%	21%	17%
21	111	112	223	14%	15%	15%	91	80	171	12%	11%	11%	83	105	188	11%	14%	12%
22	65	42	107	8%	6%	7%	78	52	130	10%	7%	9%	76	52	128	10%	7%	8%
23		2	2	0%	0%	0%	1		1	0%	0%	0%				0%	0%	0%
24	20	30	50	3%	4%	3%	23	27	50	3%	4%	3%	32	21	53	4%	3%	4%
41	7	4	11	1%	1%	1%	9	6	15	1%	1%	1%	3	3	6	0%	0%	0%
42	5	4	9	1%	1%	1%	6	3	9	1%	0%	1%	3	5	8	0%	1%	1%
43	12	21	33	2%	3%	2%	14	11	25	2%	1%	2%	6	7	13	1%	1%	1%
44	50	54	104	7%	7%	7%	82	92	174	11%	12%	12%	126	120	246	16%	16%	16%
50	1	1	2	0%	0%	0%		3	3	0%	0%	0%	3	4	7	0%	1%	0%
91	40	46	86	5%	6%	6%	79	78	157	10%	10%	10%	90	63	153	12%	8%	10%
92	1	3	4	0%	0%	0%	16	12	28	2%	2%	2%				0%	0%	0%
93	74	55	129	10%	7%	9%	44	45	89	6%	6%	6%	51	50	101	7%	7%	7%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-48 Y8L1d, Y9LA1d, Y10LA1d: stripped code frequencies

Codes	Y8L1d						Y9LA1d						Y10LA1d					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	381	371	752	50%	50%	50%	324	336	660	42%	45%	44%	294	315	609	38%	42%	40%
c2	196	186	382	26%	25%	25%	193	159	352	25%	21%	23%	191	178	369	25%	24%	24%
c4	74	83	157	10%	11%	10%	111	112	223	14%	15%	15%	138	135	273	18%	18%	18%
50	1	1	2	0%	0%	0%		3	3	0%	0%	0%	3	4	7	0%	1%	0%
c9	115	104	219	15%	14%	14%	139	135	274	18%	18%	18%	141	113	254	18%	15%	17%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-49 Y8L1d, Y9LA1d, Y10LA1d: broad code frequencies

Y8L1d broad codes	Y9LA1d broad codes					
	c1	c2	c4	50	c9	Total
c1	351	172	90	1	138	752
c2	170	113	46		53	382
c4	51	23	63	1	19	157
50		1		1		2
c9	88	43	24		64	219
Total	660	352	223	3	274	1512

Table 6.1L-50 Y8L1d by Y9LA1d: broad code frequencies (number)

Y8L1d broad codes	Y9LA1d broad codes					
	c1	c2	c4	50	c9	Total
c1	23%	11%	6%	0%	9%	50%
c2	11%	7%	3%	0%	4%	25%
c4	3%	2%	4%	0%	1%	10%
50	0%	0%	0%	0%	0%	0%
c9	6%	3%	2%	0%	4%	14%
Total	44%	23%	15%	0%	18%	100%

	N	%
Progress	310	21
Same	528	35
Regress	245	16
c9	429	28
Total	1512	100

Table 6.1L-51 Y8L1d by Y9LA1d: broad code frequencies (percentage) and progress

Y10LA1d broad codes

Y9LA1d broad codes	c1	c2	c4	50	c9	Total
c1	293	157	85	1	124	660
c2	133	126	49	3	41	352
c4	55	37	98	2	31	223
50			2	1		3
c9	128	49	39		58	274
Total	609	369	273	7	254	1512

Table 6.1L-52 Y9LA1d by Y10LA1d: broad code frequencies (number)

Y10LA1d broad codes

Y9LA1d broad codes	c1	c2	c4	50	c9	Total
c1	19%	10%	6%	0%	8%	44%
c2	9%	8%	3%	0%	3%	23%
c4	4%	2%	6%	0%	2%	15%
50	0%	0%	0%	0%	0%	0%
c9	8%	3%	3%	0%	4%	18%
Total	40%	24%	18%	0%	17%	100%

	N	%
Progress	297	20
Same	518	34
Regress	227	15
c9	470	31
Total	1512	100

Table 6.1L-53 Y9LA1d by Y10LA1d: broad code frequencies (percentage) and progress

Y10LA1d broad codes

Y8L1d broad codes	c1	c2	c4	50	c9	Total
c1	328	163	109	2	150	752
c2	141	132	65	2	42	382
c4	43	26	71	1	16	157
50	1		1			2
c9	96	48	27	2	46	219
Total	609	369	273	7	254	1512

Table 6.1L-54 Y8L1d by Y10LA1d: broad code frequencies (number)

Y10LA1c broad codes

Y8L1d broad codes	c1	c2	c4	50	c9	Total
c1	22%	11%	7%	0%	10%	50%
c2	9%	9%	4%	0%	3%	25%
c4	3%	2%	5%	0%	1%	10%
50	0%	0%	0%	0%	0%	0%
c9	6%	3%	2%	0%	3%	14%
Total	40%	24%	18%	0%	17%	100%

	N	%
Progress	342	23
Same	531	35
Regress	212	14
c9	427	28
Total	1512	100

Table 6.1L-55 Y8L1d by Y10LA1d: broad code frequencies (percentage) and progress

Y8L1d

Y9LA1d

Y10LA1d

Scores	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	497	477	974	65%	64%	64%	463	471	934	60%	63%	62%	435	428	863	57%	57%	57%
2	195	185	380	25%	25%	25%	193	159	352	25%	21%	23%	191	178	369	25%	24%	24%
3	75	83	158	10%	11%	10%	111	115	226	14%	15%	15%	141	139	280	18%	19%	19%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-56 Y8L1d, Y9LA1d, Y10LA1d: score frequencies

Y8L1d scores	Y9LA1d scores			Total
	0	2	3	
0	643	216	115	974
2	222	112	46	380
3	69	24	65	158
Total	934	352	226	1512

Table 6.1L-57 Y8L1d by Y9LA1d: score frequencies (number)

Y8L1d scores	Y9LA1d scores			Total		N	%
	0	2	3				
0	43%	14%	8%	64%	Progress	377	25
2	15%	7%	3%	25%	Same	820	54
3	5%	2%	4%	10%	Regress	315	21
Total	62%	23%	15%	100%	Total	1512	100

Table 6.1L-58 Y8L1d by Y9LA1d: score frequencies (percentage) and progress

Y9LA1d scores	Y10LA1d scores			Total
	0	2	3	
0	603	206	125	934
2	174	126	52	352
3	86	37	103	226
Total	863	369	280	1512

Table 6.1L-59 Y9LA1d by Y10LA1d: score frequencies (number)

Y9LA1d scores	Y10LA1d scores			Total		N	%
	0	2	3				
0	40%	14%	8%	62%	Progress	383	25
2	12%	8%	3%	23%	Same	832	55
3	6%	2%	7%	15%	Regress	297	20
Total	57%	24%	19%	100%	Total	1512	100

Table 6.1L-60 Y9LA1d by Y10LA1a: score frequencies (percentage) and progress

Y8L1d scores	Y10LA1d scores			Total
	0	2	3	
0	621	213	140	974
2	182	131	67	380
3	60	25	73	158
Total	863	369	280	1512

Table 6.1L-61 Y8L1d by Y10LA1d: score frequencies (number)

Y8L1d scores	Y10LA1d scores			Total		N	%
	0	2	3				
0	41%	14%	9%	64%	Progress	420	28
2	12%	9%	4%	25%	Same	825	55
3	4%	2%	5%	10%	Regress	267	18
Total	57%	24%	19%	100%	Total	1512	100

Table 6.1L-62 Y8L1d by Y10LA1d: score frequencies (percentage) and progress

Frequencies for Items Y9LG1, Y10LG1

Codes	Y9LG1a						Y10LG1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	485	450	935	63%	60%	62%	464	401	865	60%	54%	57%
31	141	149	290	18%	20%	19%	158	172	330	21%	23%	22%
32	108	109	217	14%	15%	14%	135	160	295	18%	21%	20%
91	28	25	53	4%	3%	4%	10	11	21	1%	1%	1%
92	5	11	16	1%	1%	1%		1	1	0%	0%	0%
93		1	1	0%	0%	0%				0%	0%	0%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-63 Y9LG1a, Y10LG1a: full code frequencies

Codes	Y9LG1a						Y10LG1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	485	450	935	63%	60%	62%	464	401	865	60%	54%	57%
c3	249	258	507	32%	35%	34%	293	332	625	38%	45%	41%
c9	33	37	70	4%	5%	5%	10	12	22	1%	2%	1%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-64 Y9LG1a, Y10LG1a: broad code frequencies

Y9LG1a broad codes	Y10LG1a broad codes			
	10	c3	c9	Total
10	643	287	5	935
c3	186	310	11	507
c9	36	28	6	70
Total	865	625	22	1512

Table 6.1L-65 Y9LG1a by Y10LG1a: broad code frequencies (number)

Y9LG1a broad codes	Y10LG1a broad codes				N		%	
	10	c3	c9	Total	Progress			
10	43%	19%	0%	62%	Same	287	19	63
c3	12%	21%	1%	34%	Regress	953	186	12
c9	2%	2%	0%	5%	c9	86	6	
Total	57%	41%	1%	100%	Total	1512	100	

Table 6.1L-66 Y9LG1a by Y10LG1a: broad code frequencies (percentage) and progress

Scores	Y9LG1a						Y10LG1a					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	518	487	1005	68%	65%	66%	474	413	887	62%	55%	59%
1	141	149	290	18%	20%	19%	158	172	330	21%	23%	22%
2	108	109	217	14%	15%	14%	135	160	295	18%	21%	20%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-67 Y9LG1a, Y10LG1a: score frequencies

Y9LG1a score	Y10LG1a score			Total
	0	1	2	
0	690	189	126	1005
1	121	91	78	290
2	76	50	91	217
Total	887	330	295	1512

Table 6.1L-68 Y9LG1a by Y10LG1a: score frequencies (number)

Y9LG1a score	Y10LG1a score			Total		N	%
	0	1	2				
0	46%	13%	8%	66%	Progress	393	26
1	8%	6%	5%	19%	Same	872	58
2	5%	3%	6%	14%	Regress	247	16
Total	59%	22%	20%	100%	Total	1512	100

Table 6.1L-69 Y9LG1a by Y10LG1a: score frequencies (percentage) and progress

Codes	Y9LG1b						Y10LG1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	80	69	149	10%	9%	10%	41	39	80	5%	5%	5%
30	634	618	1252	83%	83%	83%	702	678	1380	92%	91%	91%
91	27	23	50	4%	3%	3%	10	13	23	1%	2%	2%
92	5	11	16	1%	1%	1%		1	1	0%	0%	0%
93	21	24	45	3%	3%	3%	14	14	28	2%	2%	2%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-70 Y9LG1b, Y10LG1b: full code frequencies

Codes	Y9LG1b						Y10LG1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
10	80	69	149	10%	9%	10%	41	39	80	5%	5%	5%
30	634	618	1252	83%	83%	83%	702	678	1380	92%	91%	91%
c9	53	58	111	7%	8%	7%	24	28	52	3%	4%	3%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-71 Y9LG1b, Y10LG1b: broad code frequencies

Y9LG1b broad codes	Y10LG1b broad codes			Total
	10	30	c9	
10	19	125	5	149
30	47	1169	36	1252
c9	14	86	11	111
Total	80	1380	52	1512

Table 6.1L-72 Y9LG1b by Y10LG1b: broad code frequencies (number)

Y9LG1b2 broad codes	Y10LG1b2 broad codes			Total		N	%
	10	30	c9				
10	1%	8%	0%	10%	Progress	125	8
30	3%	77%	2%	83%	Same	1188	79
c9	1%	6%	1%	7%	Regress	47	3
Total	5%	91%	3%	100%	c9	152	10
					Total	1512	100

Table 6.1L-73 Y9LG1b2 by Y10LG1b2: broad code frequencies (percentage) and progress

	LG1b		LA1b	
Codes	Y9 %all	Y10 %all	Y9 %all	Y10 %all
10/93: wrong	13%	7%	25%	20%
30: correct	83%	91%	71%	78%
91/92: blank	4%	2%	4%	2%
Total	100%	100%	100%	100%

Y9 to Y10	LG1b	LA1b
Progress	11%	15%
Same	79%	69%
Regress	4%	10%
91/92: blank	5%	6%
Total	100%	100%

Table 6.1L-74 Y9LG1b2 by Y10LG1b2: alternative broad code frequencies (percentage) and progress

Scores	Y9LG1b						Y10LG1b					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	133	127	260	17%	17%	17%	65	67	132	8%	9%	9%
2	634	618	1252	83%	83%	83%	702	678	1380	92%	91%	91%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-75 Y9LG1b, Y10LG1b: score frequencies

Y9LG1b score	Y10LG1b score		
	0	2	Total
0	49	211	260
2	83	1169	1252
Total	132	1380	1512

Table 6.1L-76 Y9LG1b by Y10LG1b: score frequencies (number)

Y9LG1b score	Y10LG1b score		
	0	2	Total
0	3%	14%	17%
2	5%	77%	83%
Total	9%	91%	100%

	N	%
Progress	211	14
Same	1218	81
Regress	83	5
Total	1512	100

Table 6.1L-77 Y9LG1b by Y10LG1b: score frequencies (percentage) and progress

Codes	Y9LG1c						Y10LG1c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	57	89	146	7%	12%	10%	39	66	105	5%	9%	7%
11B	1		1	0%	0%	0%				0%	0%	0%
11S	8	5	13	1%	1%	1%	7	2	9	1%	0%	1%
13	44	48	92	6%	6%	6%	27	26	53	4%	3%	4%
14	4	1	5	1%	0%	0%				0%	0%	0%
21		2	2	0%	0%	0%				0%	0%	0%
22	28	18	46	4%	2%	3%	23	18	41	3%	2%	3%
22B	9	7	16	1%	1%	1%	9	7	16	1%	1%	1%
22BG	76	79	155	10%	11%	10%	95	84	179	12%	11%	12%
22BGS	2		2	0%	0%	0%	2	1	3	0%	0%	0%
22BM		1	1	0%	0%	0%				0%	0%	0%
22BV	13	9	22	2%	1%	1%	3	8	11	0%	1%	1%
22BSV		1	1	0%	0%	0%		1	1	0%	0%	0%
22G	77	54	131	10%	7%	9%	73	47	120	10%	6%	8%
22GS	2	1	3	0%	0%	0%				0%	0%	0%
22S				0%	0%	0%	1	1	2	0%	0%	0%
22V	16	5	21	2%	1%	1%	6	7	13	1%	1%	1%
23	4	4	8	1%	1%	1%	8	9	17	1%	1%	1%
23M				0%	0%	0%	3	3	6	0%	0%	0%
23N	7	8	15	1%	1%	1%	5	9	14	1%	1%	1%
31	16	5	21	2%	1%	1%	10	8	18	1%	1%	1%
31M	11	17	28	1%	2%	2%	11	24	35	1%	3%	2%
31N		4	4	0%	1%	0%	2	5	7	0%	1%	0%
31NV	1	1	2	0%	0%	0%				0%	0%	0%
31T	12	20	32	2%	3%	2%	16	13	29	2%	2%	2%
31TV				0%	0%	0%		1	1	0%	0%	0%
31V	2		2	0%	0%	0%				0%	0%	0%
32	74	61	135	10%	8%	9%	74	65	139	10%	9%	9%
32M	52	63	115	7%	8%	8%	74	86	160	10%	12%	11%
32MT	2		2	0%	0%	0%				0%	0%	0%
32N	18	18	36	2%	2%	2%	26	23	49	3%	3%	3%
32NT		1	1	0%	0%	0%				0%	0%	0%
32NV				0%	0%	0%				0%	0%	0%
32T	90	107	197	12%	14%	13%	133	144	277	17%	19%	18%
32V	11	11	22	1%	1%	1%	13	5	18	2%	1%	1%
41		1	1	0%	0%	0%	4		4	1%	0%	0%
42		4	4	0%	1%	0%	5	4	9	1%	1%	1%
43	6	2	8	1%	0%	1%	9	9	18	1%	1%	1%
44	3	5	8	0%	1%	1%	10	4	14	1%	1%	1%
44L				0%	0%	0%	1		1	0%	0%	0%
91	58	46	104	8%	6%	7%	37	38	75	5%	5%	5%
92	8	12	20	1%	2%	1%		1	1	0%	0%	0%
93	55	35	90	7%	5%	6%	41	26	67	5%	3%	4%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-78 Y9LG1c, Y10LG1c: full code frequencies

Codes	Y9LG1c						Y10LG1c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	66	94	160	9%	13%	11%	46	68	114	6%	9%	8%
13	44	48	92	6%	6%	6%	27	26	53	4%	3%	4%
14	4	1	5	1%	0%	0%				0%	0%	0%
21		2	2	0%	0%	0%				0%	0%	0%
22	223	175	398	29%	23%	26%	212	174	386	28%	23%	26%
23	11	12	23	1%	2%	2%	16	21	37	2%	3%	2%
31	42	47	89	5%	6%	6%	39	51	90	5%	7%	6%
32	247	261	508	32%	35%	34%	320	323	643	42%	43%	43%
41		1	1	0%	0%	0%	4		4	1%	0%	0%
42		4	4	0%	1%	0%	5	4	9	1%	1%	1%
43	6	2	8	1%	0%	1%	9	9	18	1%	1%	1%
44	3	5	8	0%	1%	1%	11	4	15	1%	1%	1%
91	58	46	104	8%	6%	7%	37	38	75	5%	5%	5%
92	8	12	20	1%	2%	1%		1	1	0%	0%	0%
93	55	35	90	7%	5%	6%	41	26	67	5%	3%	4%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-79 Y9LG1c, Y10LG1c: stripped code frequencies

Codes	Y9LG1c						Y10LG1c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	114	143	257	15%	19%	17%	73	94	167	10%	13%	11%
c2	234	189	423	31%	25%	28%	228	195	423	30%	26%	28%
c3	289	308	597	38%	41%	39%	359	374	733	47%	50%	48%
c4	9	12	21	1%	2%	1%	29	17	46	4%	2%	3%
c9	121	93	214	16%	12%	14%	78	65	143	10%	9%	9%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-80 Y9LG1c, Y10LG1c: broad code frequencies

Y9LG1c broad codes	Y10LG1c broad codes					
	c1	c2	c3	c4	c9	Total
c1	53	76	89	7	32	257
c2	46	166	169	10	32	423
c3	34	124	377	22	40	597
c4		5	14	2		21
c9	34	52	84	5	39	214
Total	167	423	733	46	143	1512

Table 6.1L-81 Y9LG1c by Y10LG1c: broad code frequencies (number)

Y9LG1c broad codes	Y10LG1c broad codes					
	c1	c2	c3	c4	c9	Total
c1	4%	5%	6%	0%	2%	17%
c2	3%	11%	11%	1%	2%	28%
c3	2%	8%	25%	1%	3%	39%
c4	0%	0%	1%	0%	0%	1%
c9	2%	3%	6%	0%	3%	14%
Total	11%	28%	48%	3%	9%	100%

	N	%
Progress	373	25
Same	598	40
Regress	223	15
c9	318	21
Total	1512	100

Table 6.1L-82 Y9LG1c by Y10LG1c: broad code frequencies (percentage) and progress

Scores	Y9LG1c						Y10LG1c					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	235	236	471	31%	32%	31%	151	159	310	20%	21%	21%
2	234	189	423	31%	25%	28%	228	195	423	30%	26%	28%
2.5	42	47	89	5%	6%	6%	39	51	90	5%	7%	6%
3	256	273	529	33%	37%	35%	349	340	689	46%	46%	46%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-83 Y9LG1c, Y10LG1c: score frequencies

Y9LG1c score	Y10LG1c score				
	0	2	2.5	3	Total
0	158	128	30	155	471
2	78	166	22	157	423
2.5	15	24	7	43	89
3	59	105	31	334	529
Total	310	423	90	689	1512

Table 6.1L-84 Y9LG1c by Y10LG1c: score frequencies (number)

Y9LG1c score	Y10LG1c score				
	0	2	2.5	3	Total
0	10%	8%	2%	10%	31%
2	5%	11%	1%	10%	28%
2.5	1%	2%	0%	3%	6%
3	4%	7%	2%	22%	35%
Total	21%	28%	6%	46%	100%

	N	%
Progress	535	35
Same	665	44
Regress	312	21
Total	1512	100

Table 6.1L-85 Y9LG1c by Y10LG1c: score frequencies (percentage) and progress

Codes	Y9LG1d						Y10LG1d					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	56	54	110	7%	7%	7%	36	34	70	5%	5%	5%
11S	26	35	61	3%	5%	4%	38	21	59	5%	3%	4%
13	85	121	206	11%	16%	14%	74	115	189	10%	15%	13%
13S	46	28	74	6%	4%	5%	26	20	46	3%	3%	3%
21	37	22	59	5%	3%	4%	20	17	37	3%	2%	2%
21B	2	1	3	0%	0%	0%				0%	0%	0%
21BS		1	1	0%	0%	0%				0%	0%	0%
21BV				0%	0%	0%				0%	0%	0%
21M	34	45	79	4%	6%	5%	37	53	90	5%	7%	6%
21MS		4	4	0%	1%	0%	1		1	0%	0%	0%
21MV		1	1	0%	0%	0%				0%	0%	0%
21S	10	4	14	1%	1%	1%	8	2	10	1%	0%	1%
21SV	2	2	4	0%	0%	0%	2		2	0%	0%	0%
21V	8	7	15	1%	1%	1%	5	7	12	1%	1%	1%
22	8	3	11	1%	0%	1%	2	1	3	0%	0%	0%
22B		1	1	0%	0%	0%				0%	0%	0%
22M	4	4	8	1%	1%	1%	3	3	6	0%	0%	0%
22S	1		1	0%	0%	0%				0%	0%	0%
22SV	5		5	1%	0%	0%		1	1	0%	0%	0%
22V	4	1	5	1%	0%	0%		3	3	0%	0%	0%
24	2		2	0%	0%	0%	9	2	11	1%	0%	1%
24S	1		1	0%	0%	0%	1	1	2	0%	0%	0%
31	66	80	146	9%	11%	10%	53	64	117	7%	9%	8%
31S	12	9	21	2%	1%	1%	11	14	25	1%	2%	2%
31SV	6	1	7	1%	0%	0%	3	4	7	0%	1%	0%
31V	18	22	40	2%	3%	3%	14	16	30	2%	2%	2%
32	19	21	40	2%	3%	3%	30	31	61	4%	4%	4%
32S	3	1	4	0%	0%	0%	3	1	4	0%	0%	0%
32SV	1		1	0%	0%	0%				0%	0%	0%
32V	6	7	13	1%	1%	1%	13	9	22	2%	1%	1%
41	3	2	5	0%	0%	0%	1	1	2	0%	0%	0%
41S				0%	0%	0%		1	1	0%	0%	0%
42	61	78	139	8%	10%	9%	112	112	224	15%	15%	15%
42L	1		1	0%	0%	0%		1	1	0%	0%	0%
42S	15	15	30	2%	2%	2%	20	23	43	3%	3%	3%
43	2	2	4	0%	0%	0%	2	2	4	0%	0%	0%
44	67	49	116	9%	7%	8%	123	101	224	16%	14%	15%
44L	1	1	2	0%	0%	0%		1	1	0%	0%	0%
44S	11	7	18	1%	1%	1%	15	6	21	2%	1%	1%
91	72	61	133	9%	8%	9%	54	44	98	7%	6%	6%
92	8	12	20	1%	2%	1%		1	1	0%	0%	0%
93	64	43	107	8%	6%	7%	43	31	74	6%	4%	5%
93S				0%	0%	0%	8	2	10	1%	0%	1%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-86 Y9LG1d, Y10LG1d: full code frequencies

Codes	Y9LG1d						Y10LG1d					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
11	82	89	171	11%	12%	11%	74	55	129	10%	7%	9%
13	131	149	280	17%	20%	19%	100	135	235	13%	18%	16%
21	93	87	180	12%	12%	12%	73	79	152	10%	11%	10%
22	22	9	31	3%	1%	2%	5	8	13	1%	1%	1%
24	3		3	0%	0%	0%	10	3	13	1%	0%	1%
31	102	112	214	13%	15%	14%	81	98	179	11%	13%	12%
32	29	29	58	4%	4%	4%	46	41	87	6%	6%	6%
41	3	2	5	0%	0%	0%	1	2	3	0%	0%	0%
42	77	93	170	10%	12%	11%	132	136	268	17%	18%	18%
43	2	2	4	0%	0%	0%	2	2	4	0%	0%	0%
44	79	57	136	10%	8%	9%	138	108	246	18%	14%	16%
91	72	61	133	9%	8%	9%	54	44	98	7%	6%	6%
92	8	12	20	1%	2%	1%		1	1	0%	0%	0%
93	64	43	107	8%	6%	7%	51	33	84	7%	4%	6%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-87 Y9LG1d, Y10LG1d: stripped code frequencies

Codes	Y9LG1d						Y10LG1d					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
c1	213	238	451	28%	32%	30%	174	190	364	23%	26%	24%
c2	118	96	214	15%	13%	14%	88	90	178	11%	12%	12%
c3	131	141	272	17%	19%	18%	127	139	266	17%	19%	18%
c4	161	154	315	21%	21%	21%	273	248	521	36%	33%	34%
c9	144	116	260	19%	16%	17%	105	78	183	14%	10%	12%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-88 Y9LG1d, Y10LG1d: broad code frequencies

Y9LG1d broad codes	Y10LG1d broad codes					
	c1	c2	c3	c4	c9	Total
c1	160	46	64	123	58	451
c2	33	46	39	76	20	214
c3	44	26	94	84	24	272
c4	52	34	43	164	22	315
c9	75	26	26	74	59	260
Total	364	178	266	521	183	1512

Table 6.1L-89 Y9LG1d by Y10LG1d: broad code frequencies (number)

Y9LG1d broad codes	Y10LG1d broad codes					
	c1	c2	c3	c4	c9	Total
c1	11%	3%	4%	8%	4%	30%
c2	2%	3%	3%	5%	1%	14%
c3	3%	2%	6%	6%	2%	18%
c4	3%	2%	3%	11%	1%	21%
c9	5%	2%	2%	5%	4%	17%
Total	24%	12%	18%	34%	12%	100%

	N	%
Progress	432	29
Same	464	31
Regress	232	15
c9	384	25
Total	1512	100

Table 6.1L-90 Y9LG1d by Y10LG1d: broad code frequencies (percentage) and progress

Scores	Y9LG1d						Y10LG1d					
	N Girls	N Boys	N All	% Girls	% Boys	% All	N Girls	N Boys	N All	% Girls	% Boys	% All
0	357	354	711	47%	48%	47%	279	268	547	36%	36%	36%
2	118	96	214	15%	13%	14%	88	90	178	11%	12%	12%
2.5	102	112	214	13%	15%	14%	81	98	179	11%	13%	12%
3	190	183	373	25%	25%	25%	319	289	608	42%	39%	40%
Total	767	745	1512	100%	100%	100%	767	745	1512	100%	100%	100%

Table 6.1L-91 Y9LG1d, Y10LG1d: score frequencies

Y9LG1d score	Y10LG1d score				
	0	2	2.5	3	Total
0	352	72	59	228	711
2	53	46	26	89	214
2.5	54	22	54	84	214
3	88	38	40	207	373
Total	547	178	179	608	1512

Table 6.1L-92 Y9LG1d by Y10LG1d: score frequencies (number)

Y9LG1d score	Y10LG1d score				
	0	2	2.5	3	Grand Total
0	23%	5%	4%	15%	47%
2	4%	3%	2%	6%	14%
2.5	4%	1%	4%	6%	14%
3	6%	3%	3%	14%	25%
Grand Total	36%	12%	12%	40%	100%

	N	%
Progress	558	37
Same	659	44
Regress	295	20
Total	1512	100

Table 6.1L-93 Y9LG1d by Y10LG1d: score frequencies (percentage) and progress

6.2 Changes in pupil scores between Y8, Y9 and Y10

The following tables report the results of analyses conducted on data of pupil scores, looking at progress from Y8 to Y9 to Y10.

The Wilcoxon test was performed on the data. This test shows the number of pupils that improved their score between the years (shown as Positive Ranks), the number who got a lower score between the years (shown as Negative Ranks) and the number of pupils that kept the same score between the years (shown as Ties).

The crosstabulation shows, for each grade of the score in either Y8 or Y9 or Y10, the distribution of scores in the next year. The correlation table also shows whether pupil score in Y8 or Y9 or Y10 is related to pupil score in Y8 or Y9 or Y10. A strong positive correlation (e.g. over 0.5) indicates that the order of scores for pupils in one of the years was similar to their order in another of the years; a lower correlation indicates that the relation is weak.

With such a large sample even quite small effects can be statistically significant, so it is important to pay attention to the size of the improvement or correlation rather than its statistical significance. Even very small correlations may be statistically significant, but they still only represent a weak relationship.

Analysis of Y8A1 by Y9A1a

Y8A1 * Y9A1A Crosstabulation

			Y9A1A				Total
			0	1	2	3	
Y8A1	0	Count	259	49	6	371	685
		% within Y8A1	37.8%	7.2%	.9%	54.2%	100.0%
		% within Y9A1A	67.4%	54.4%	40.0%	36.3%	45.3%
	1	Count	16	4	2	50	72
		% within Y8A1	22.2%	5.6%	2.8%	69.4%	100.0%
		% within Y9A1A	4.2%	4.4%	13.3%	4.9%	4.8%
	2	Count	6	6	1	27	40
		% within Y8A1	15.0%	15.0%	2.5%	67.5%	100.0%
		% within Y9A1A	1.6%	6.7%	6.7%	2.6%	2.6%
	3	Count	103	31	6	575	715
		% within Y8A1	14.4%	4.3%	.8%	80.4%	100.0%
		% within Y9A1A	26.8%	34.4%	40.0%	56.2%	47.3%
Total	Count	384	90	15	1023	1512	
	% within Y8A1	25.4%	6.0%	1.0%	67.7%	100.0%	
	% within Y9A1A	100.0%	100.0%	100.0%	100.0%	100.0%	

Ranks

	N	Mean Rank	Sum of Ranks
Y9A1A - Y8A1 Negative Ranks	168 ^a	310.23	52118.50
Positive Ranks	505 ^b	345.91	174682.50
Ties	839 ^c		
Total	1512		

a. Y9A1A < Y8A1

b. Y9A1A > Y8A1

c. Y8A1 = Y9A1A

Test Statistics^b

	Y9A1A - Y8A1
Z	-12.723 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 505 pupils increased their score in Y9, 168 decreased their score in Y9, and 839 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

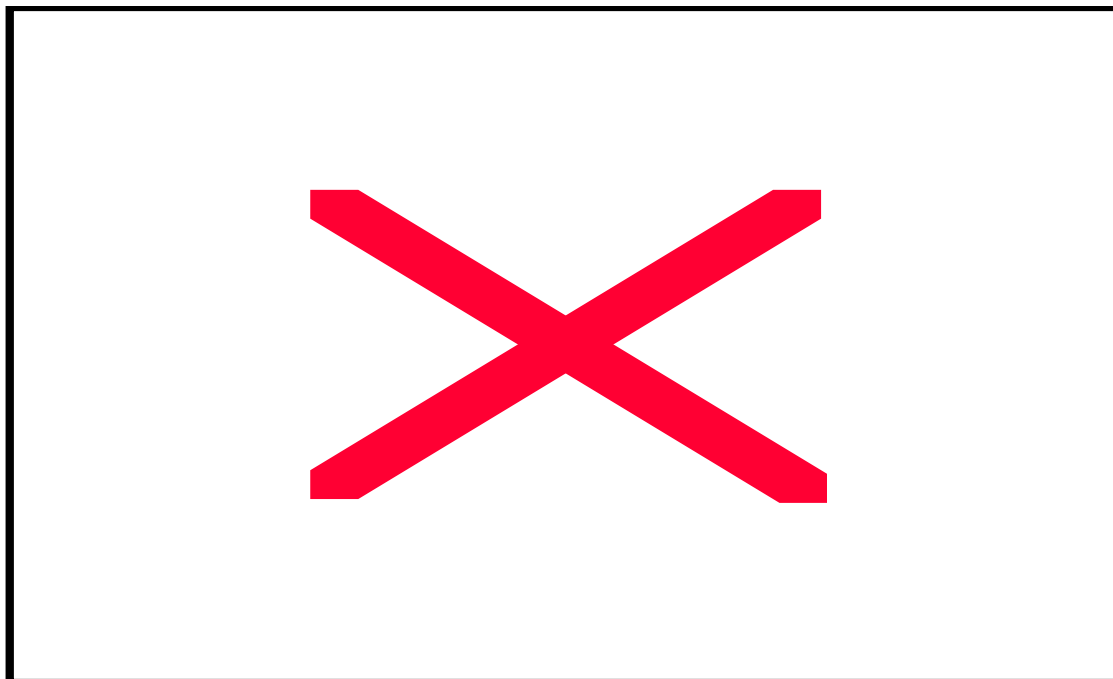
Correlations

			Y8A1	Y9A1A
Spearman's rho	Y8A1	Correlation Coefficient	1.000	.276**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y9A1A	Correlation Coefficient	.276**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y8A1) is weakly correlated with the second test score (Y9A1a).

Analysis of Y8A1 by Y10A1a



Ranks

	N	Mean Rank	Sum of Ranks
Y10A1A - Y8A1 Negative Ranks	136 ^a	255.05	34687.00
Positive Ranks	483 ^b	325.47	157203.00
Ties	893 ^c		
Total	1512		

a. Y10A1A < Y8A1

b. Y10A1A > Y8A1

c. Y8A1 = Y10A1A

Test Statistics^b

	Y10A1A - Y8A1
Z	-14.465 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 483 pupils increased their score in Y10, 136 decreased their score in Y10, and 893 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

Correlations

			Y8A1	Y10A1A
Spearman's rho	Y8A1	Correlation Coefficient	1.000	.336**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10A1A	Correlation Coefficient	.336**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y8A1) is weakly correlated with the second test score (Y10A1a).

Analysis of Y9A1a by Y10A1a

Y9A1A * Y10A1A Crosstabulation

			Y10A1A				Total
			0	1	2	3	
Y9A1A	0	Count	201	8	9	166	384
		% within Y9A1A	52.3%	2.1%	2.3%	43.2%	100.0%
		% within Y10A1A	52.8%	16.7%	33.3%	15.7%	25.4%
	1	Count	24	5	3	58	90
		% within Y9A1A	26.7%	5.6%	3.3%	64.4%	100.0%
		% within Y10A1A	6.3%	10.4%	11.1%	5.5%	6.0%
	2	Count	2	2	1	10	15
		% within Y9A1A	13.3%	13.3%	6.7%	66.7%	100.0%
		% within Y10A1A	.5%	4.2%	3.7%	.9%	1.0%
	3	Count	154	33	14	822	1023
		% within Y9A1A	15.1%	3.2%	1.4%	80.4%	100.0%
		% within Y10A1A	40.4%	68.8%	51.9%	77.8%	67.7%
Total	Count	381	48	27	1056	1512	
	% within Y9A1A	25.2%	3.2%	1.8%	69.8%	100.0%	
	% within Y10A1A	100.0%	100.0%	100.0%	100.0%	100.0%	

Ranks

	N	Mean Rank	Sum of Ranks
Y10A1A - Y9A1A Negative Ranks	229 ^a	240.16	54996.50
Positive Ranks	254 ^b	243.66	61889.50
Ties	1029 ^c		
Total	1512		

a. Y10A1A < Y9A1A

b. Y10A1A > Y9A1A

c. Y9A1A = Y10A1A

Test Statistics^b

	Y10A1A - Y9A1A
Z	-1.168 ^a
Asymp. Sig. (2-tailed)	.243

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 254 pupils increased their score in Y10, 229 decreased their score in Y10, and 1029 pupils kept the same score. Only slightly more pupils had a positive improvement in their scores. (The positive change is too small to be statistically significant).

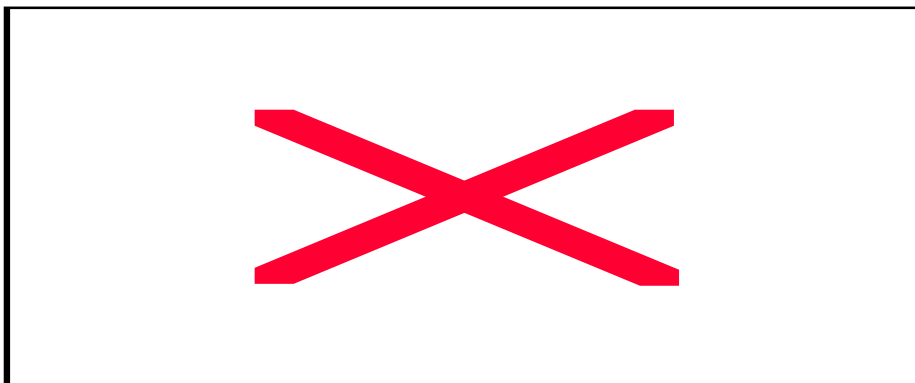
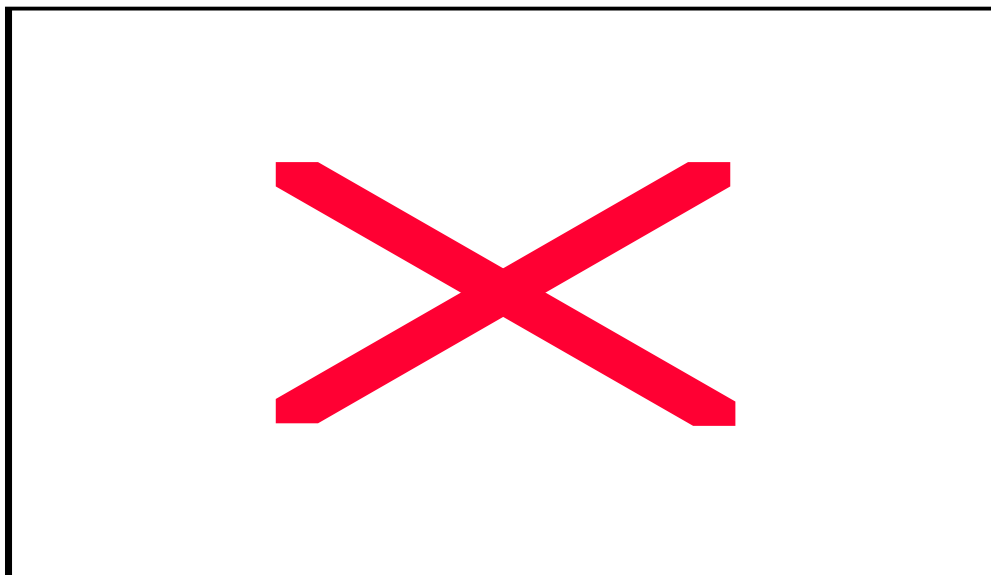
Correlations

			Y9A1A	Y10A1A
Spearman's rho	Y9A1A	Correlation Coefficient	1.000	.356*
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10A1A	Correlation Coefficient	.356**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y9A1a) is weakly correlated with the second test score (Y10A1a).

Analysis of Y9A1b by Y10A1b



Test Statistics^b

	Y10A1B - Y9A1B
Z	-4.227 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 320 pupils increased their score in Y10, 221 decreased their score in Y10, and 971 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

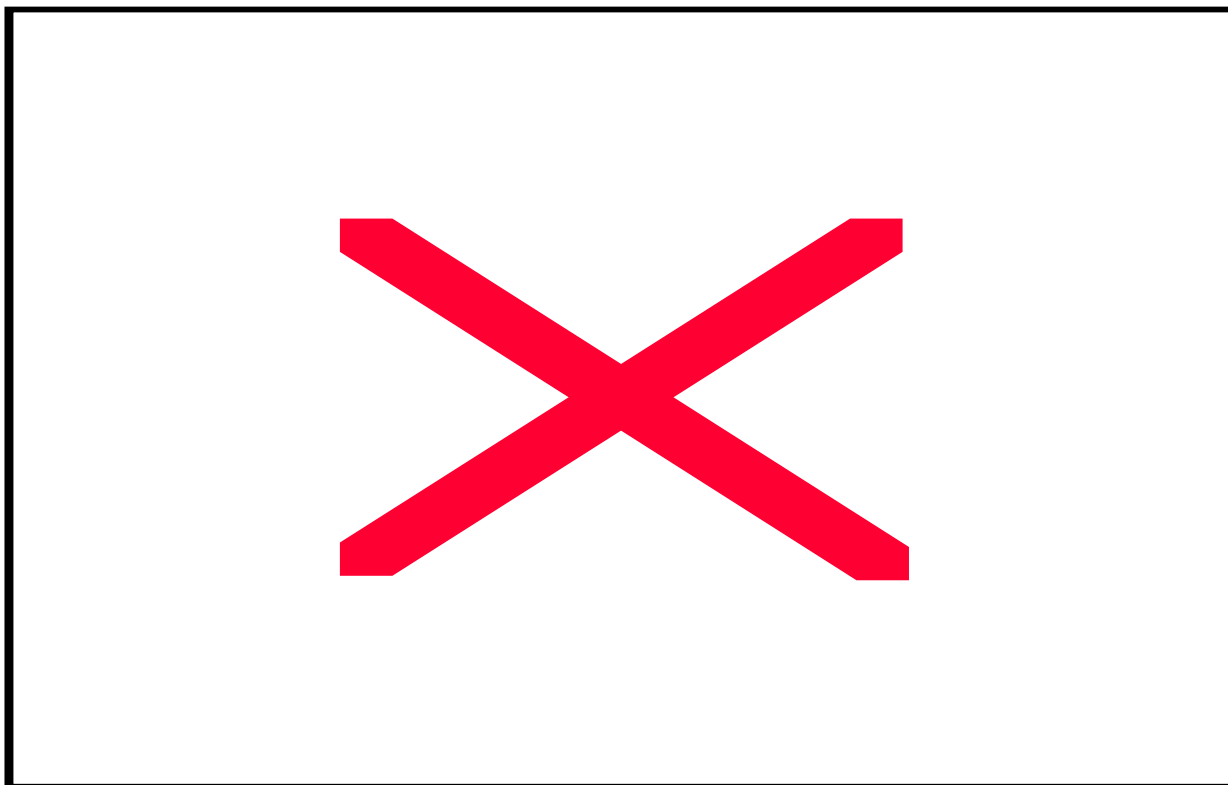
Correlations

			Y9A1B	Y10A1B
Spearman's rho	Y9A1B	Correlation Coefficient	1.000	.338**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10A1B	Correlation Coefficient	.338**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y9A1b) is weakly correlated with the second test score (Y10A1b).

Analysis of Y8G1 by Y9G1



Ranks

	N	Mean Rank	Sum of Ranks
Y9G1 - Y8G1 Negative Ranks	621 ^a	479.43	297728.00
Positive Ranks	311 ^b	440.68	137050.00
Ties	580 ^c		
Total	1512		

a. Y9G1 < Y8G1

b. Y9G1 > Y8G1

c. Y8G1 = Y9G1

Test Statistics^b

	Y9G1 - Y8G1
Z	-9.822 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 311 pupils increased their score in Y9, 621 decreased their score in Y9, and 580 pupils kept the same score. Therefore, more pupils had a negative change in their scores. (This negative change is statistically significant).

Correlations

	Y8G1	Y9G1
Spearman's rho	Correlation Coefficient	1.000
	Sig. (2-tailed)	.000
	N	1512
Y9G1	Correlation Coefficient	.237**
	Sig. (2-tailed)	.000
	N	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y8G1) is weakly correlated with the second test score (Y9G1).

Analysis of Y8G1 by Y10G1

Y8G1 * Y10G1 Crosstabulation

			Y10G1					Total
			.0	1.0	2.0	2.5	3.0	
Y8G1	.0	Count	263	35	26	136	159	619
		% within Y8G1	42.5%	5.7%	4.2%	22.0%	25.7%	100.0%
		% within Y10G1	58.1%	43.8%	48.1%	38.1%	28.0%	40.9%
	1.0	Count	31	6	6	17	15	75
		% within Y8G1	41.3%	8.0%	8.0%	22.7%	20.0%	100.0%
		% within Y10G1	6.8%	7.5%	11.1%	4.8%	2.6%	5.0%
	2.0	Count	35	11	8	29	40	123
		% within Y8G1	28.5%	8.9%	6.5%	23.6%	32.5%	100.0%
		% within Y10G1	7.7%	13.8%	14.8%	8.1%	7.0%	8.1%
	2.5	Count	77	14	8	107	147	353
		% within Y8G1	21.8%	4.0%	2.3%	30.3%	41.6%	100.0%
		% within Y10G1	17.0%	17.5%	14.8%	30.0%	25.9%	23.3%
	3.0	Count	47	14	6	68	207	342
		% within Y8G1	13.7%	4.1%	1.8%	19.9%	60.5%	100.0%
		% within Y10G1	10.4%	17.5%	11.1%	19.0%	36.4%	22.6%
	Total	Count	453	80	54	357	568	1512
		% within Y8G1	30.0%	5.3%	3.6%	23.6%	37.6%	100.0%
		% within Y10G1	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Ranks

	N	Mean Rank	Sum of Ranks
Y10G1 - Y8G1 Negative Ranks	311 ^a	444.27	138168.00
Positive Ranks	610 ^b	469.53	286413.00
Ties	591 ^c		
Total	1512		

a. Y10G1 < Y8G1

b. Y10G1 > Y8G1

c. Y8G1 = Y10G1

Test Statistics^b

	Y10G1 - Y8G1
Z	-9.234 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 610 pupils increased their score in Y10, 311 decreased their score in Y10, and 591 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

Correlations

			Y8G1	Y10G1
Spearman's rho	Y8G1	Correlation Coefficient	1.000	.312**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10G1	Correlation Coefficient	.312**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y8G1) is weakly correlated with the second test score (Y10G1).

Analysis of Y9G1 by Y10G1

Y9G1 * Y10G1 Crosstabulation

			Y10G1					Total
			.0	1.0	2.0	2.5	3.0	
Y9G1	.0	Count	298	45	26	160	262	791
		% within Y9G1	37.7%	5.7%	3.3%	20.2%	33.1%	100.0%
		% within Y10G1	65.8%	56.3%	48.1%	44.8%	46.1%	52.3%
	1.0	Count	34	7	6	31	42	120
		% within Y9G1	28.3%	5.8%	5.0%	25.8%	35.0%	100.0%
		% within Y10G1	7.5%	8.8%	11.1%	8.7%	7.4%	7.9%
	2.0	Count	42	5	8	35	49	139
		% within Y9G1	30.2%	3.6%	5.8%	25.2%	35.3%	100.0%
		% within Y10G1	9.3%	6.3%	14.8%	9.8%	8.6%	9.2%
	2.5	Count	56	16	13	101	149	335
		% within Y9G1	16.7%	4.8%	3.9%	30.1%	44.5%	100.0%
		% within Y10G1	12.4%	20.0%	24.1%	28.3%	26.2%	22.2%
	3.0	Count	23	7	1	30	66	127
		% within Y9G1	18.1%	5.5%	.8%	23.6%	52.0%	100.0%
		% within Y10G1	5.1%	8.8%	1.9%	8.4%	11.6%	8.4%
	Total	Count	453	80	54	357	568	1512
		% within Y9G1	30.0%	5.3%	3.6%	23.6%	37.6%	100.0%
		% within Y10G1	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Ranks

	N	Mean Rank	Sum of Ranks
Y10G1 - Y9G1 Negative Ranks	227 ^a	451.62	102517.00
Positive Ranks	805 ^b	534.80	430511.00
Ties	480 ^c		
Total	1512		

a. Y10G1 < Y9G1

b. Y10G1 > Y9G1

c. Y9G1 = Y10G1

Test Statistics^b

	Y10G1 - Y9G1
Z	-17.220 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 805 pupils increased their score in Y10, 227 decreased their score in Y10, and 480 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

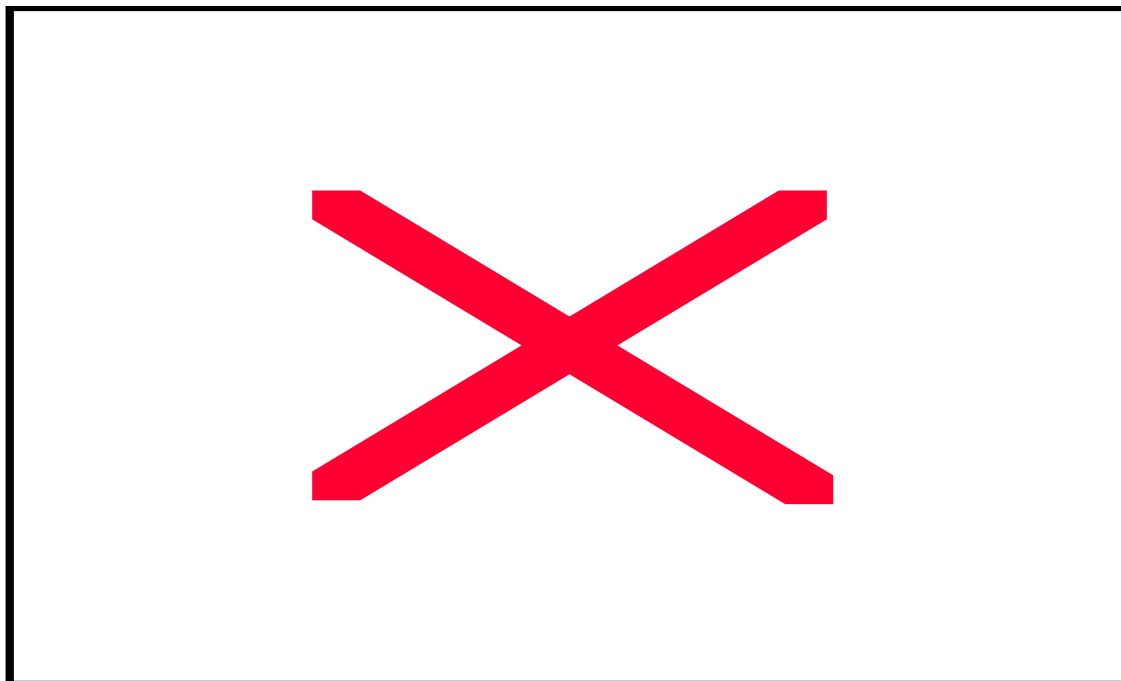
Correlations

			Y9G1	Y10G1
Spearman's rho	Y9G1	Correlation Coefficient	1.000	.180*
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10G1	Correlation Coefficient	.180**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** Correlation is significant at the .01 level (2-tailed).

The first test score (Y9G1) is very weakly correlated with the second test score (Y10G1).

Analysis of Y8G2b by Y9G2b



Ranks

	N	Mean Rank	Sum of Ranks
Y9G2B - Y8G2B Negative Ranks	388 ^a	393.76	152778.50
Positive Ranks	472 ^b	460.70	217451.50
Ties	652 ^c		
Total	1512		

a. Y9G2B < Y8G2B

b. Y9G2B > Y8G2B

c. Y8G2B = Y9G2B

Test Statistics^b

	Y9G2B - Y8G2B
Z	-4.580 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 472 pupils increased their score in Y9, 388 decreased their score in Y9, and 652 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

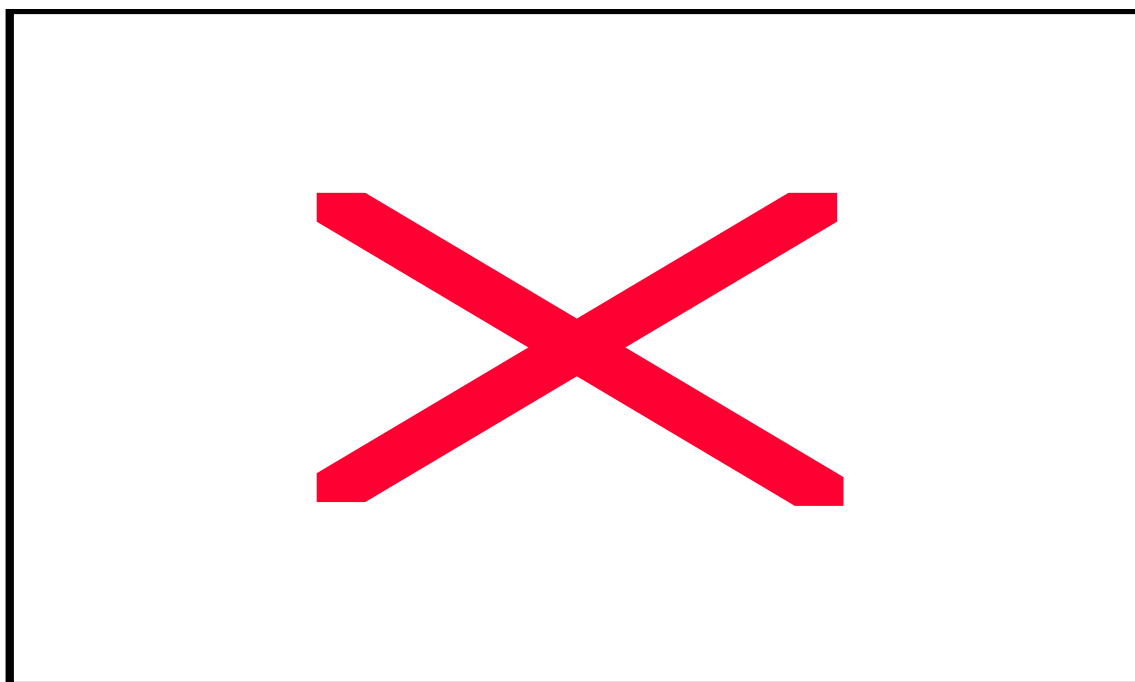
Correlations

			Y8G2B	Y9G2B
Spearman's rho	Y8G2B	Correlation Coefficient	1.000	.177**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y9G2B	Correlation Coefficient	.177**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y8G2b) is very weakly correlated with the second test score (Y9G2b).

Analysis of Y8G2b by Y10G2b



Ranks

	N	Mean Rank	Sum of Ranks
Y10G2B - Y8G2B Negative Ranks	428 ^a	428.45	183378.00
Positive Ranks	464 ^b	463.15	214900.00
Ties	620 ^c		
Total	1512		

a. Y10G2B < Y8G2B

b. Y10G2B > Y8G2B

c. Y8G2B = Y10G2B

Test Statistics^b

	Y10G2B - Y8G2B
Z	-2.106 ^a
Asymp. Sig. (2-tailed)	.035

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 464 pupils increased their score in Y10, 428 decreased their score in Y10, and 620 pupils kept the same score. Therefore, there has been a positive improvement in scores for this question but is it not a large change. (This positive change is just about statistically significant).

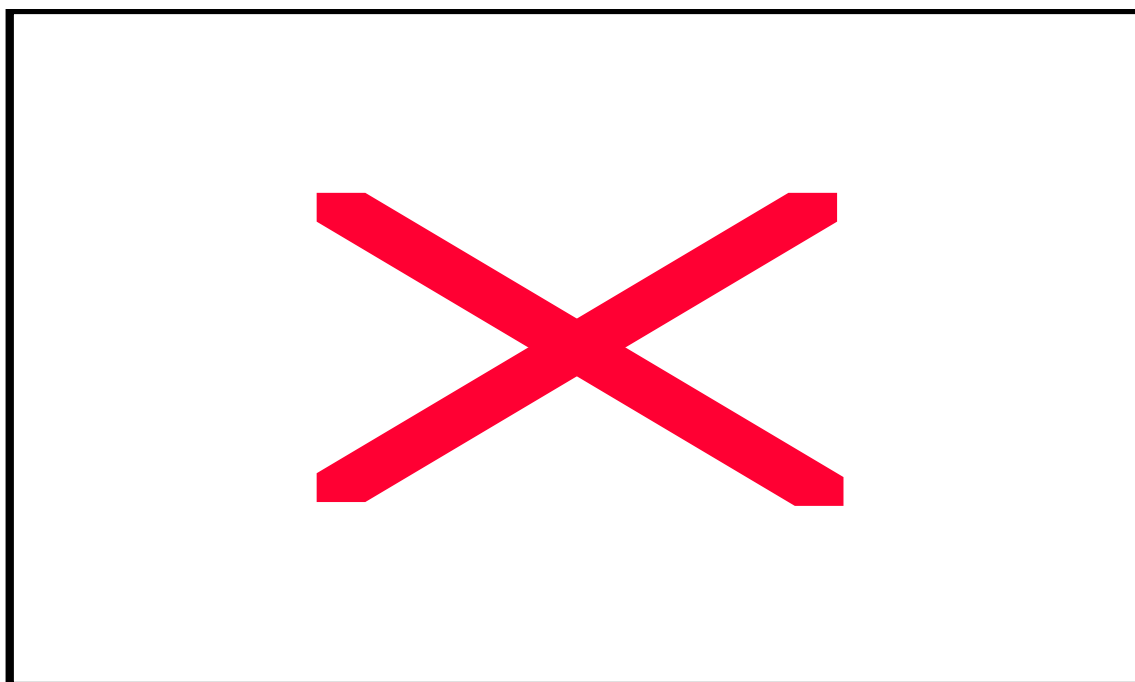
Correlations

			Y8G2B	Y10G2B
Spearman's rho	Y8G2B	Correlation Coefficient	1.000	.179**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10G2B	Correlation Coefficient	.179**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y8G2b) is very weakly correlated with the second test score (Y10G2b).

Analysis of Y9G2b by Y10G2b



Ranks

	N	Mean Rank	Sum of Ranks
Y10G2B - Y9G2B Negative Ranks	434 ^a	420.52	182504.00
Positive Ranks	383 ^b	395.95	151649.00
Ties	695 ^c		
Total	1512		

a. Y10G2B < Y9G2B

b. Y10G2B > Y9G2B

c. Y9G2B = Y10G2B

Test Statistics^b

	Y10G2B - Y9G2B
Z	-2.371 ^a
Asymp. Sig. (2-tailed)	.018

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 383 pupils increased their score in Y10, 434 decreased their score in Y10, and 695 pupils kept the same score. Therefore, more pupils had a negative change in their scores. (This negative change is statistically significant).

Correlations

			Y9G2B	Y10G2B
Spearman's rho	Y9G2B	Correlation Coefficient	1.000	.235**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10G2B	Correlation Coefficient	.235**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

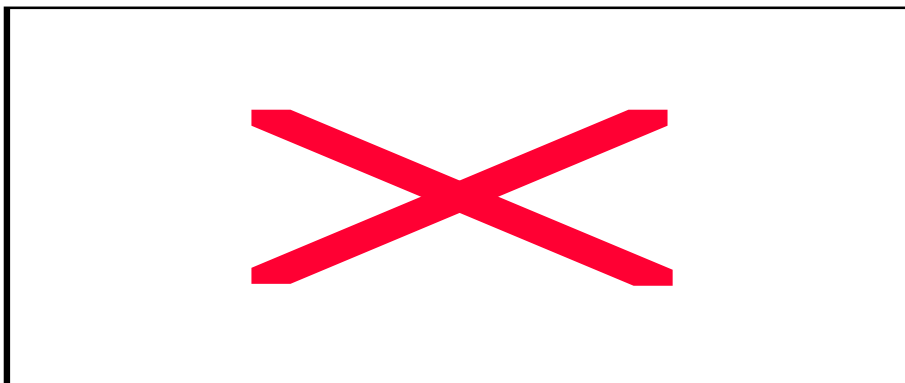
** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y9G2b) is weakly correlated with the second test score (Y10G2b).

Analysis of Y8G4a by Y9G4a

Y8G4A * Y9G4A Crosstabulation

			Y9G4A			Total
			0	1	2	
Y8G4A	0	Count	65	59	188	312
		% within Y8G4A	20.8%	18.9%	60.3%	100.0%
		% within Y9G4A	34.4%	33.0%	16.4%	20.6%
	1	Count	48	49	248	345
		% within Y8G4A	13.9%	14.2%	71.9%	100.0%
		% within Y9G4A	25.4%	27.4%	21.7%	22.8%
	2	Count	76	71	708	855
		% within Y8G4A	8.9%	8.3%	82.8%	100.0%
		% within Y9G4A	40.2%	39.7%	61.9%	56.5%
Total	Count	189	179	1144	1512	
	% within Y8G4A	12.5%	11.8%	75.7%	100.0%	
	% within Y9G4A	100.0%	100.0%	100.0%	100.0%	



Test Statistics^b

	Y9G4A - Y8G4A
Z	-10.180 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 495 pupils increased their score in Y9, 195 decreased their score in Y9, and 822 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

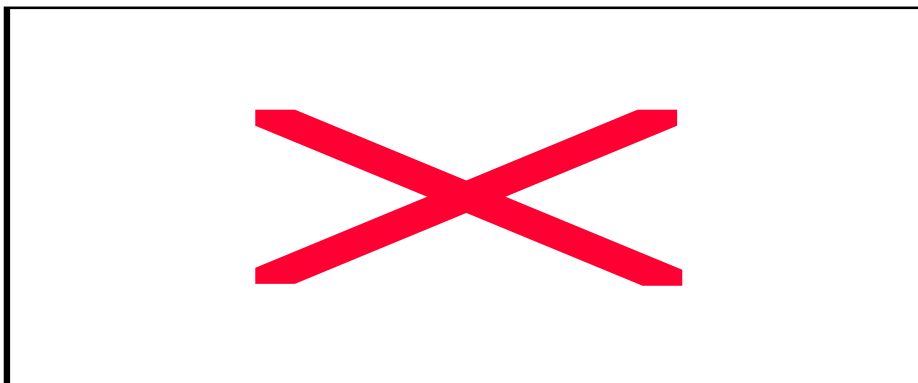
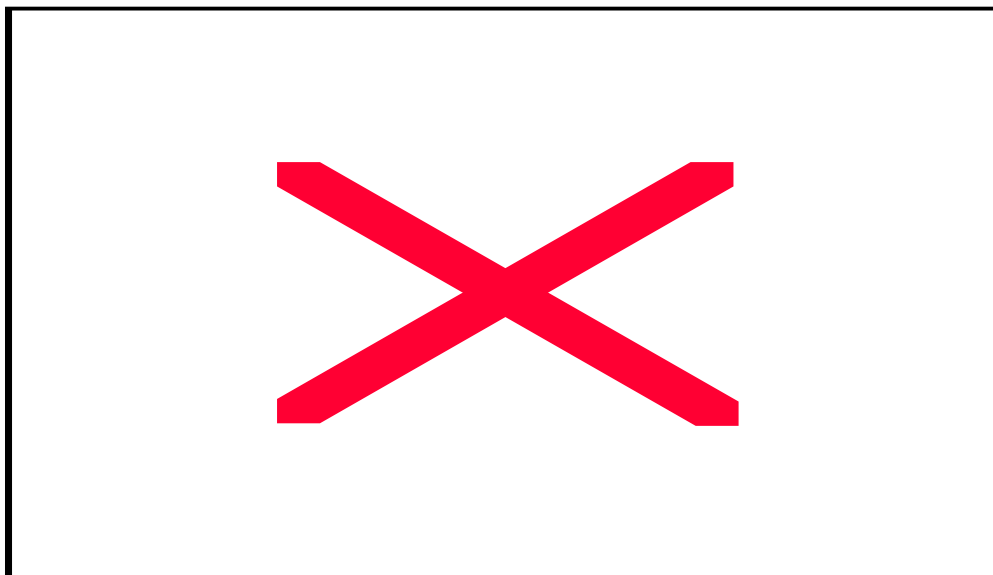
Correlations

			Y8G4A	Y9G4A
Spearman's rho	Y8G4A	Correlation Coefficient	1.000	.205**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y9G4A	Correlation Coefficient	.205**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y8G4a) is very weakly correlated with the second test score (Y9G4b).

Analysis of Y8G4a by Y10G4a



Test Statistics^b

	Y10G4A - Y8G4A
Z	-17.908 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 566 pupils increased their score in Y10, 82 decreased their score in Y10, and 864 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

Correlations

			Y8G4A	Y10G4A
Spearman's rho	Y8G4A	Correlation Coefficient	1.000	.191**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10G4A	Correlation Coefficient	.191**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

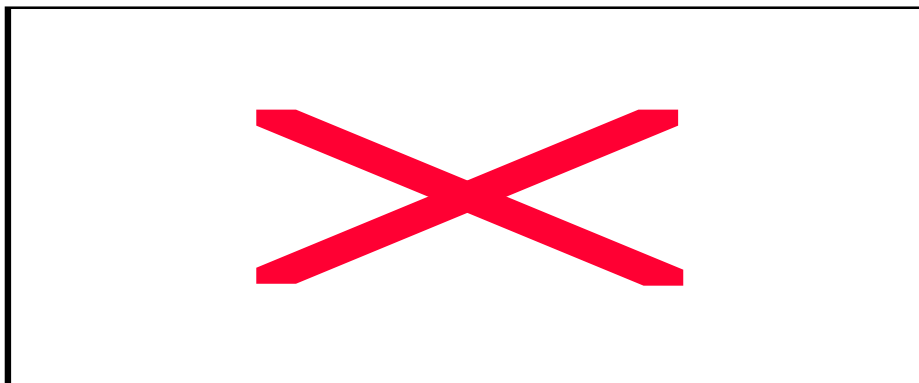
** Correlation is significant at the .01 level (2-tailed).

The first test score (Y8G4a) is very weakly correlated with the second test score (Y10G4a).

Analysis of Y9G4a by Y10G4a

Y9G4A * Y10G4A Crosstabulation

			Y10G4A			Total
			.0	1.0	2.0	
Y9G4A	0	Count	32	24	133	189
		% within Y9G4A	16.9%	12.7%	70.4%	100.0%
		% within Y10G4A	38.6%	25.5%	10.0%	12.5%
	1	Count	18	23	138	179
		% within Y9G4A	10.1%	12.8%	77.1%	100.0%
		% within Y10G4A	21.7%	24.5%	10.3%	11.8%
	2	Count	33	47	1064	1144
		% within Y9G4A	2.9%	4.1%	93.0%	100.0%
		% within Y10G4A	39.8%	50.0%	79.7%	75.7%
Total	Count	83	94	1335	1512	
	% within Y9G4A	5.5%	6.2%	88.3%	100.0%	
	% within Y10G4A	100.0%	100.0%	100.0%	100.0%	



Test Statistics^b

	Y10G4A - Y9G4A
Z	-9.672 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 295 pupils increased their score in Y10, 98 decreased their score in Y10, and 1119 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

Correlations

			Y9G4A	Y10G4A
Spearman's rho	Y9G4A	Correlation Coefficient	1.000	.266**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10G4A	Correlation Coefficient	.266**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

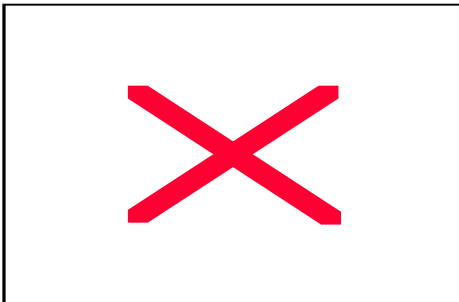
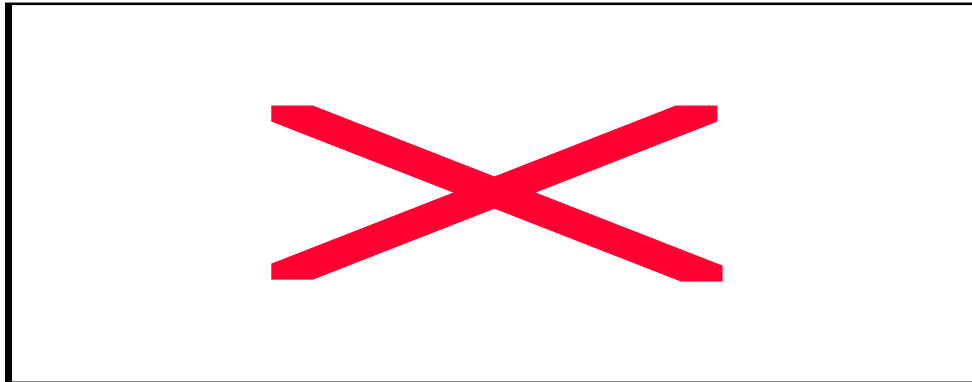
** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y9G4a) is weakly correlated with the second test score (Y10G4a).

Analysis of Y8L1total by Y9LA1total

Y8L1TOT * Y9LA1TOT Crosstabulation

		Y9LA1TOT																			Total
		.0	1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	
Y8L1.0	Count	40	2	88	3	12		18	5	29	2	19	5	14	1	11		4		2	255
	% within	5.7%	.8%	4.5%	1.2%	4.7%		7.1%	2.0%	14%	.8%	7.5%	2.0%	5.5%	.4%	4.3%		1.6%		.8%	0.0%
	% within	6.8%	8.2%	7.1%	7.6%	6.0%		5.9%	2.5%	6.2%	8.2%	0.4%	6.7%	0.9%	6.3%	3.8%		5.4%		3.2%	6.9%
1.0	Count	5		5		1		3	1			2				1		1			19
	% within	6.3%		6.3%		5.3%		5.8%	5.3%			0.5%				5.3%		5.3%			0.0%
	% within	3.4%		1.5%		1.3%		2.7%	2.5%			1.1%				1.3%		1.4%			1.3%
2.0	Count	29	2	65	3	18	1	15	8	28	3	25	3	16	5	13		5	3	8	250
	% within	1.6%	.8%	6.0%	1.2%	7.2%	.4%	6.0%	3.2%	1.2%	1.2%	0.0%	1.2%	6.4%	2.0%	5.2%		2.0%	1.2%	3.2%	0.0%
	% within	9.5%	8.2%	0.0%	7.6%	4.0%	0.0%	3.3%	0.0%	5.6%	7.3%	3.7%	0.0%	2.5%	1.3%	6.3%		6.8%	2.9%	2.7%	6.5%
2.5	Count	2	1	4	1	2		1	1	3	1	2	1	2			2	1			24
	% within	8.3%	4.2%	6.7%	4.2%	8.3%		4.2%	4.2%	2.5%	4.2%	8.3%	4.2%	8.3%			8.3%	4.2%			0.0%
	% within	1.3%	9.1%	1.2%	5.9%	2.7%		.9%	2.5%	1.7%	9.1%	1.1%	3.3%	1.6%			0.0%	1.4%			1.6%
3.0	Count	7	1	23	1	8		3	4	12	2	16	4	14		5	1	6	1	1	109
	% within	6.4%	.9%	1.1%	.9%	7.3%		2.8%	3.7%	1.0%	1.8%	4.7%	3.7%	2.8%		4.6%	.9%	5.5%	.9%	.9%	0.0%
	% within	4.7%	9.1%	7.1%	5.9%	0.7%		2.7%	0.0%	6.7%	8.2%	8.7%	3.3%	0.9%		6.3%	0.0%	8.1%	4.3%	1.6%	7.2%
3.5	Count	1		3																	4
	% within	5.0%		5.0%																	0.0%
	% within	.7%		.9%																	.3%
4.0	Count	17	2	32	1	6		19	1	21		24	3	17	2	11	2	10		3	171
	% within	9.9%	1.2%	8.7%	.6%	3.5%		1.1%	.6%	2.3%		4.0%	1.8%	9.9%	1.2%	6.4%	1.2%	5.8%		1.8%	0.0%
	% within	1.4%	8.2%	9.8%	5.9%	8.0%		6.8%	2.5%	1.7%		3.1%	0.0%	3.3%	2.5%	3.8%	0.0%	3.5%		4.8%	1.3%
4.5	Count	1		12	1	2		4	3	3		3	3	3	1	1		1	1	1	40
	% within	2.5%		0.0%	2.5%	5.0%		0.0%	7.5%	7.5%		7.5%	7.5%	7.5%	2.5%	2.5%		2.5%	2.5%	2.5%	0.0%
	% within	.7%		3.7%	5.9%	2.7%		3.5%	7.5%	1.7%		1.6%	0.0%	2.3%	6.3%	1.3%		1.4%	4.3%	1.6%	2.6%
5.0	Count	16	2	30	2	7		13	6	33	1	33	3	16	2	8		10		7	189
	% within	8.5%	1.1%	5.9%	1.1%	3.7%		6.9%	3.2%	7.5%	.5%	7.5%	1.6%	8.5%	1.1%	4.2%		5.3%		3.7%	0.0%
	% within	0.7%	8.2%	9.2%	1.8%	9.3%		1.5%	5.0%	8.4%	9.1%	8.0%	0.0%	2.5%	2.5%	0.0%		3.5%		1.1%	2.5%
5.5	Count	1		5		3		1	1	2		1			1	1	2				18
	% within	5.6%		7.8%		6.7%		5.6%	5.6%	1.1%		5.6%			5.6%	5.6%	1.1%				0.0%
	% within	.7%		1.5%		4.0%		.9%	2.5%	1.1%		.5%			6.3%	1.3%	0.0%				1.2%
6.0	Count	17		27	2	7		13	6	23	1	24	2	20	2	5	1	11		7	168
	% within	0.1%		6.1%	1.2%	4.2%		7.7%	3.6%	3.7%	.6%	4.3%	1.2%	1.9%	1.2%	3.0%	.6%	6.5%		4.2%	0.0%
	% within	1.4%		8.3%	1.8%	9.3%		1.5%	5.0%	2.8%	9.1%	3.1%	6.7%	5.6%	2.5%	6.3%	0.0%	4.9%		1.1%	1.1%
6.5	Count	1		1	1	1		3	1	2		2		2	2	4		2			22
	% within	4.5%		4.5%	4.5%	4.5%		3.6%	4.5%	9.1%		9.1%		9.1%	9.1%	8.2%		9.1%			0.0%
	% within	.7%		.3%	5.9%	1.3%		2.7%	2.5%	1.1%		1.1%		1.6%	2.5%	5.0%		2.7%			1.5%
7.0	Count	6		20	1	2		8		8	1	18	2	11		5	1	6		5	94
	% within	6.4%		1.3%	1.1%	2.1%		8.5%		8.5%	1.1%	9.1%	2.1%	1.7%		5.3%	1.1%	6.4%		5.3%	0.0%
	% within	4.0%		6.2%	5.9%	2.7%		7.1%		4.5%	9.1%	9.8%	6.7%	8.6%		6.3%	0.0%	8.1%		7.9%	6.2%
7.5	Count	2		1				2	1	1		1				1		2			11
	% within	8.2%		9.1%				8.2%	9.1%	9.1%		9.1%				9.1%		8.2%			0.0%
	% within	1.3%		.3%				1.8%	2.5%	.6%		.5%				1.3%		2.7%			.7%
8.0	Count	2		4		3		5	1	10		8	1	8		11		5		6	64
	% within	3.1%		6.3%		4.7%		7.8%	1.6%	5.6%		2.5%	1.6%	2.5%		7.2%		7.8%		9.4%	0.0%
	% within	1.3%		1.2%		4.0%		4.4%	2.5%	5.6%		4.4%	3.3%	6.3%		3.8%		6.8%		9.5%	4.2%
8.5	Count							2	1			1	1			1					6
	% within							3.3%	6.7%			6.7%	6.7%			6.7%					0.0%
	% within							1.8%	2.5%			.5%	3.3%			1.3%					.4%
9.0	Count	2	1	2	1	3		2		2		3	2	5		2	1	9	1	10	46
	% within	4.3%	2.2%	4.3%	2.2%	6.5%		4.3%		4.3%		6.5%	4.3%	0.9%		4.3%	2.2%	9.6%	2.2%	1.7%	0.0%
	% within	1.3%	9.1%	.6%	5.9%	4.0%		1.8%		1.1%		1.6%	6.7%	3.9%		2.5%	0.0%	2.2%	4.3%	5.9%	3.0%
9.5	Count																			2	2
	% within																			0.0%	0.0%
	% within																				.1%
10.0	Count			3				1		2		1						1	1	11	20



The tables above and left show that 766 pupils increased their score in Y9, 511 decreased their score in Y9, and 235 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

Correlations

			Y8L1TOT	Y9LA1TOT
Spearman's rho	Y8L1TOT	Correlation Coefficient	1.000	.272**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y9LA1TOT	Correlation Coefficient	.272**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

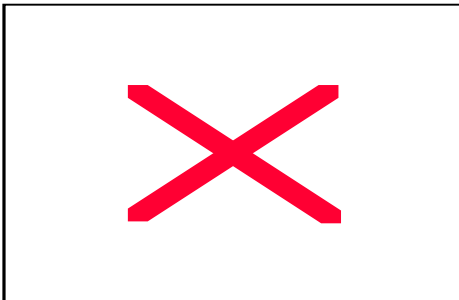
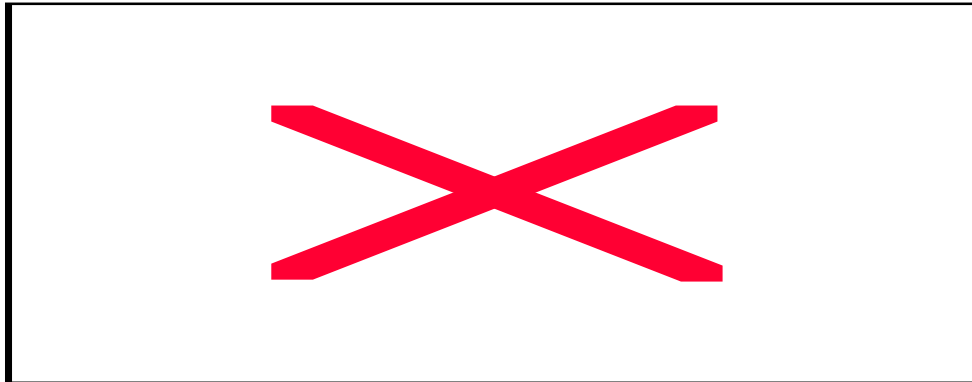
** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y8L1total) is weakly correlated with the second test score (Y9LA1total).

Analysis of Y8L1total by Y10LA1total

Y8L1TOT * Y10LA1TO Crosstabulation

		Y10LA1TO																			Total
		.0	1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	
Y8L1 .0	Count	35	7	50	5	14	2	18	9	38	2	23	3	19		10	3	11		6	255
	% within	3.7%	2.7%	9.6%	2.0%	5.5%	.8%	7.1%	3.5%	4.9%	.8%	9.0%	1.2%	7.5%		3.9%	1.2%	4.3%		2.4%	0.0%
	% within	4.7%	3.8%	0.2%	0.0%	6.9%	0.0%	6.2%	5.8%	8.4%	8.2%	7.7%	7.3%	2.6%		0.6%	4.3%	9.6%		5.0%	6.9%
1.0	Count	1	1	5				2		3	1	1	2	1						2	19
	% within	5.3%	5.3%	6.3%				0.5%		5.8%	5.3%	5.3%	0.5%	5.3%						0.5%	0.0%
	% within	1.0%	7.7%	2.0%				1.8%		1.4%	9.1%	.8%	4.9%	.7%						1.7%	1.3%
2.0	Count	23	1	61	1	8		15	13	30	1	20	7	22	6	13	4	17		8	250
	% within	9.2%	.4%	4.4%	.4%	3.2%		6.0%	5.2%	2.0%	.4%	8.0%	2.8%	8.8%	2.4%	5.2%	1.6%	6.8%		3.2%	0.0%
	% within	2.8%	7.7%	4.6%	0.0%	5.4%		3.5%	2.8%	4.5%	9.1%	5.4%	7.1%	4.6%	8.6%	3.8%	9.0%	4.9%		6.6%	6.5%
2.5	Count			2		1		5	2	6	1	2	2					3			24
	% within			8.3%		4.2%		0.8%	8.3%	5.0%	4.2%	8.3%	8.3%					2.5%			0.0%
	% within			.8%		1.9%		4.5%	3.5%	2.9%	9.1%	1.5%	4.9%					2.6%			1.6%
3.0	Count	6	1	16		7		7	4	11		14	1	15	2	12	2	7		4	109
	% within	5.5%	.9%	4.7%		6.4%		6.4%	3.7%	0.1%		2.8%	.9%	3.8%	1.8%	1.0%	1.8%	6.4%		3.7%	0.0%
	% within	5.9%	7.7%	6.5%		3.5%		6.3%	7.0%	5.3%		0.8%	2.4%	9.9%	9.5%	2.8%	9.5%	6.1%		3.3%	7.2%
3.5	Count			2				1						1							4
	% within			0.0%				5.0%						5.0%							0.0%
	% within			.8%				.9%						.7%							.3%
4.0	Count	8	1	24	1	10		16	9	34		17	2	13	2	12	4	8		10	171
	% within	4.7%	.6%	4.0%	.6%	5.8%		9.4%	5.3%	9.9%		9.9%	1.2%	7.6%	1.2%	7.0%	2.3%	4.7%		5.8%	0.0%
	% within	7.9%	7.7%	9.7%	0.0%	9.2%		4.4%	5.8%	6.4%		3.1%	4.9%	8.6%	9.5%	2.8%	9.0%	7.0%		8.3%	1.5%
4.5	Count	1		9				3	3	8	1	4	2	4		1		1		3	40
	% within	2.5%		2.5%				7.5%	7.5%	0.0%	2.5%	0.0%	5.0%	0.0%		2.5%		2.5%		7.5%	0.0%
	% within	1.0%		3.6%				2.7%	5.3%	3.9%	9.1%	3.1%	4.9%	2.6%		1.1%		4.3%		2.5%	2.6%
5.0	Count	9		26	1	5		22	6	28	2	11	7	20	3	9	3	22	2	13	189
	% within	4.8%		3.8%	.5%	2.6%		1.6%	3.2%	4.8%	1.1%	5.8%	3.7%	0.6%	1.6%	4.8%	1.6%	1.6%	1.1%	6.9%	0.0%
	% within	8.9%		0.5%	0.0%	9.6%		9.8%	0.5%	3.5%	8.2%	8.5%	7.1%	3.2%	4.3%	9.6%	4.3%	9.3%	8.6%	0.7%	2.5%
5.5	Count	3		2				1		4		2	1	2	1					2	18
	% within	6.7%		1.1%				5.6%		2.2%		1.1%	5.6%	1.1%	5.6%					1.1%	0.0%
	% within	3.0%		.8%				.9%		1.9%		1.5%	2.4%	1.3%	4.8%					1.7%	1.2%
6.0	Count	9	1	22	1	3		9	5	23	1	18	6	17	1	15	2	19	1	15	168
	% within	5.4%	.6%	3.1%	.6%	1.8%		5.4%	3.0%	3.7%	.6%	0.7%	3.6%	0.1%	.6%	8.9%	1.2%	1.3%	.6%	8.9%	0.0%
	% within	8.9%	7.7%	8.9%	0.0%	5.8%		8.1%	8.8%	1.1%	9.1%	3.8%	4.6%	1.3%	4.8%	6.0%	9.5%	6.7%	4.3%	2.4%	1.1%
6.5	Count							3		4		3	3	3	2	3				1	22
	% within							3.6%		8.2%		3.6%	3.6%	3.6%	9.1%	3.6%				4.5%	0.0%
	% within							2.7%		1.9%		2.3%	7.3%	2.0%	9.5%	3.2%				.8%	1.5%
7.0	Count	5		13		1		3	3	7		7	2	15	1	12	3	10		12	94
	% within	5.3%		3.8%		1.1%		3.2%	3.2%	7.4%		7.4%	2.1%	6.0%	1.1%	2.8%	3.2%	0.6%		2.8%	0.0%
	% within	5.0%		5.2%		1.9%		2.7%	5.3%	3.4%		5.4%	4.9%	9.9%	4.8%	2.8%	4.3%	8.8%		9.9%	6.2%
7.5	Count	1						1	1		1		1	2		1		1		2	11
	% within	9.1%						9.1%	9.1%		9.1%		9.1%	8.2%		9.1%		9.1%		8.2%	0.0%
	% within	1.0%						.9%	1.8%		9.1%		2.4%	1.3%		1.1%		.9%		1.7%	.7%
8.0	Count			12	1			4	1	8	1	5	2	9	2	2		7		10	64
	% within			8.8%	1.6%			6.3%	1.6%	2.5%	1.6%	7.8%	3.1%	4.1%	3.1%	3.1%		0.9%		5.6%	0.0%
	% within			4.8%	0.0%			3.6%	1.8%	3.9%	9.1%	3.8%	4.9%	6.0%	9.5%	2.1%		6.1%		8.3%	4.2%
8.5	Count			1				1						1					1	2	6
	% within			6.7%				6.7%						6.7%					6.7%	3.3%	0.0%
	% within			.4%				.9%						.7%					4.3%	1.7%	.4%
9.0	Count		1	3		2			1	2		3		5		2		7	2	18	46
	% within		2.2%	6.5%		4.3%			2.2%	4.3%		6.5%		0.9%		4.3%		5.2%	4.3%	9.1%	0.0%
	% within		7.7%	1.2%		3.8%			1.8%	1.0%		2.3%		3.3%		2.1%		6.1%	8.6%	4.9%	3.0%
9.5	Count													1				1		2	
	% within													0.0%				0.0%			0.0%
	% within													.7%				.9%			.1%
10.0	Count					1				1				1	1	2		1		13	20
	% within					0.0%				0.0%				0.0%	0.0%	0.0%		0.0%		0.0%	0.0%



The tables above and left show that 907 pupils increased their score in Y10, 396 decreased their score in Y10, and 209 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

Correlations

			Y8L1TOT	Y10LA1TO
Spearman's rho	Y8L1TOT	Correlation Coefficient	1.000	.296**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10LA1TO	Correlation Coefficient	.296**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y8L1total) is weakly correlated with the second test score (Y10LA1total).

Analysis of Y9LA1total by Y10LA1total

Y9LA1TOT * Y10LA1TO Crosstabulation

Y9LA1TOT		Y10LA1TO																			Total
		.0	1.0	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	
Y9LA1.0	Count	22	2	36	1	7		7	8	21	2	13	2	10	2	7	1	5		3	149
	% within Y9LA1.0	4.8%	1.3%	4.2%	.7%	4.7%		4.7%	5.4%	1.1%	1.3%	3.7%	1.3%	3.7%	1.3%	1.7%	.7%	3.4%		2.0%	10.0%
	% within Y10LA1TO	1.8%	5.4%	4.5%	0.0%	3.5%		3.3%	4.0%	0.1%	3.2%	0.0%	1.9%	3.6%	1.5%	7.4%	1.8%	1.4%		2.5%	0.9%
1.0	Count			4				1	1			1				2		2			11
	% within Y9LA1.0			3.4%				9.1%	9.1%			9.1%				3.2%		3.2%			10.0%
	% within Y10LA1TO			1.6%				.9%	1.8%			.8%				2.1%		.8%			.7%
2.0	Count	26	5	91		13		28	12	52	4	35	9	21	2	13	1	9	1	3	325
	% within Y9LA1.0	3.0%	1.5%	3.0%		4.0%		3.6%	3.7%	3.0%	1.2%	0.8%	2.8%	3.5%	.6%	1.0%	.3%	2.8%	.3%	.9%	10.0%
	% within Y10LA1TO	5.7%	3.5%	3.7%		5.0%		5.2%	1.1%	5.1%	3.4%	3.9%	2.0%	3.9%	1.5%	3.8%	1.8%	1.9%	1.3%	1.5%	.5%
2.5	Count	4		2	1	1		3		1		2				1	2				17
	% within Y9LA1.0	3.5%		1.8%	5.9%	5.9%		7.6%		5.9%		1.8%				3.9%	1.8%				10.0%
	% within Y10LA1TO	4.0%		.8%	0.0%	1.9%		2.7%		.5%		1.5%				1.8%	2.1%				.1%
3.0	Count	8	1	11		2		8	4	12	1	8	1	7		2	1	5	1	3	75
	% within Y9LA1.0	0.7%	1.3%	4.7%		2.7%		0.7%	5.3%	5.0%	1.3%	0.7%	1.3%	0.3%		2.7%	1.3%	3.7%	.3%	1.0%	10.0%
	% within Y10LA1TO	3.9%	7.7%	4.4%		3.8%		7.2%	7.0%	5.8%	3.1%	3.2%	2.4%	1.6%		2.1%	1.8%	1.4%	1.3%	1.5%	3.0%
3.5	Count	1																			1
	% within Y9LA1.0	0.0%																			0.0%
	% within Y10LA1TO	1.0%																			.1%
4.0	Count	9	1	18	1	8		10	3	13	1	12	4	11		8	1	10		3	113
	% within Y9LA1.0	3.0%	.9%	5.9%	.9%	7.1%		3.8%	2.7%	1.5%	.9%	0.6%	3.5%	0.7%		1.1%	.9%	3.8%		2.7%	10.0%
	% within Y10LA1TO	3.9%	7.7%	7.3%	0.0%	5.4%		9.0%	5.3%	9.1%	3.2%	9.8%	7.3%			1.1%	.8%	3.8%		2.5%	.5%
4.5	Count	2		6		1		3		6		7	1	5	1	1		3		4	40
	% within Y9LA1.0	5.0%		5.0%		2.5%		7.5%		5.0%		7.5%	2.5%	2.5%	2.5%	2.5%		7.5%		1.0%	10.0%
	% within Y10LA1TO	2.0%		2.4%		1.9%		2.7%		2.9%		5.4%	2.4%	3.3%	1.8%	.1%		2.6%		1.3%	.6%
5.0	Count	13		29	2	3		10	5	32		13	3	22	2	11	1	17	3	13	179
	% within Y9LA1.0	7.3%		3.2%	1.1%	1.7%		5.6%	2.8%	7.9%		7.3%	1.7%	2.3%	1.1%	3.1%	.6%	3.5%	.7%	7.3%	10.0%
	% within Y10LA1TO	2.9%		1.7%	0.0%	5.8%		9.0%	3.8%	5.5%		0.0%	7.3%	1.6%	1.5%	1.7%	1.8%	1.9%	2.9%	1.7%	.8%
5.5	Count	1	1	3									1	1		1		2		1	11
	% within Y9LA1.0	0.1%	3.1%	7.3%									1.1%	1.1%		1.1%		3.2%		1.1%	10.0%
	% within Y10LA1TO	1.0%	7.7%	1.2%									2.4%	.7%		1.1%		.8%		.8%	.7%
6.0	Count	9	2	16		6	2	14	10	29	3	11	3	24	3	14	3	17		17	183
	% within Y9LA1.0	4.9%	1.1%	3.7%		3.3%	1.1%	7.7%	5.5%	5.8%	1.6%	3.0%	1.6%	3.1%	1.6%	7.7%	1.6%	3.3%		1.3%	10.0%
	% within Y10LA1TO	3.9%	5.4%	3.5%		1.5%	0.0%	2.6%	7.5%	1.0%	7.3%	3.5%	7.3%	5.9%	1.3%	1.9%	1.3%	1.9%		1.0%	2.1%
6.5	Count	2		3	1				4	6		4	1	3			1			4	30
	% within Y9LA1.0	3.7%		0.0%	3.3%				3.3%	0.0%		3.3%	3.3%	0.0%		3.3%	3.3%			1.3%	10.0%
	% within Y10LA1TO	2.0%		1.2%	0.0%				7.0%	2.9%		3.1%	2.4%	2.0%		1.1%	1.8%			1.3%	2.0%
7.0	Count	1	1	13	4	6		12	6	13		13	3	19	4	7	2	12		12	128
	% within Y9LA1.0	.8%	.8%	0.2%	3.1%	4.7%		9.4%	4.7%	0.2%		0.2%	2.3%	1.8%	3.1%	3.5%	.6%	4.4%		4.4%	10.0%
	% within Y10LA1TO	1.0%	7.7%	5.2%	0.0%	1.5%		0.8%	0.5%	5.3%		0.0%	7.3%	2.6%	1.0%	7.4%	1.5%	1.5%		1.9%	.5%
7.5	Count			3		1			1	1		1	3	1	1	4					16
	% within Y9LA1.0			3.8%		3.3%			3.3%	3.3%		3.3%	3.8%	3.3%	3.3%	5.0%					10.0%
	% within Y10LA1TO			1.2%		1.9%			1.8%	.5%		.8%	7.3%	.7%	1.8%	1.3%					.1%
8.0	Count	1		7		2		6	3	12		4	4	9	3	9	2	10	1	7	80
	% within Y9LA1.0	1.3%		3.8%		2.5%		7.5%	3.8%	5.0%		5.0%	5.0%	1.3%	3.8%	1.3%	2.5%	2.5%	.3%	3.8%	10.0%
	% within Y10LA1TO	1.0%		2.8%		3.8%		5.4%	5.3%	5.8%		3.1%	3.8%	3.0%	1.3%	3.6%	1.5%	3.8%	1.3%	3.8%	.3%
8.5	Count				1			1				1	1	1		1	1	1		2	10
	% within Y9LA1.0				0.0%			0.0%				0.0%	0.0%	0.0%		0.0%	0.0%	0.0%		0.0%	10.0%
	% within Y10LA1TO				1.9%			.9%				.8%	2.4%	.7%		.1%	.8%	.9%		.7%	.7%
9.0	Count	1		2				4		6		3	3	10	1	4	6	12		22	74
	% within Y9LA1.0	1.4%		2.7%				5.4%		3.1%		1.1%	1.1%	3.5%	.4%	3.4%	1.1%	3.2%		1.7%	10.0%
	% within Y10LA1TO	1.0%		.8%				3.6%		2.9%		2.3%	7.3%	3.6%	1.8%	1.3%	3.6%	0.5%		1.2%	.9%
9.5	Count									1		1					1	2		2	7
	% within Y9LA1.0									1.3%		1.3%					1.3%	3.6%		1.6%	10.0%
	% within Y10LA1TO									.5%		.8%					.8%	.8%		.7%	.5%
10.0	Count	1		4		1		4		2		1	2	7	1	7		7	1	25	63
	% within Y9LA1.0	0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	10.0%
	% within Y10LA1TO	1.0%		1.6%		.4%		1.6%		.2%		.1%	.2%	1.0%	.1%	1.0%		1.0%	.1%	1.0%	3.0%

Ranks

	N	Mean Rank	Sum of Ranks
Y10LA1TO - Y9LA1TOT Negative Ranks	508 ^a	581.24	295272.00
Positive Ranks	767 ^b	675.59	518178.00
Ties	237 ^c		
Total	1512		

a. Y10LA1TO < Y9LA1TOT

b. Y10LA1TO > Y9LA1TOT

c. Y9LA1TOT = Y10LA1TO

Test Statistics^b

	Y10LA1TO - Y9LA1TOT
Z	-8.495 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 767 pupils increased their score in Y10, 508 decreased their score in Y10, and 237 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

Correlations

			Y9LA1TOT	Y10LA1TO
Spearman's rho	Y9LA1TOT	Correlation Coefficient	1.000	.370**
		Sig. (2-tailed)	.	.000
		N	1512	1512
	Y10LA1TO	Correlation Coefficient	.370**	1.000
		Sig. (2-tailed)	.000	.
		N	1512	1512

** . Correlation is significant at the .01 level (2-tailed).

The first test score (Y9LA1total) is weakly correlated with the second test score (Y10LA1total).

Analysis of Y9LG1total by Y10LG1total

Y9LG1TOT * Y10LG1TO Crosstabulation

		Y10LG1TO																			Total
		0	1.0	2.0	2.5	3.0	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0		
Y9LG1.0	Count	19	1	28		3	10	7	11		8	2	12		8		13		8	130	
	% within Y9LG1.0	4.6%	.8%	21.5%		2.3%	7.7%	5.4%	8.5%		6.2%	1.5%	9.2%		6.2%		10.0%		6.2%	00.0%	
	% within Y10LG1TO	34.5%	50.0%	13.9%		15.0%	8.8%	23.3%	10.7%		8.6%	2.6%	6.1%		5.1%		6.6%		6.5%	8.6%	
1.0	Count			2	1				2			2	1				2			10	
	% within Y9LG1.0			20.0%	10.0%				20.0%			20.0%	10.0%				20.0%			00.0%	
	% within Y10LG1TO			1.0%	00.0%				1.9%			2.6%	.5%				1.0%			.7%	
2.0	Count	13	1	63		5	31	5	16	1	21	14	22	6	18	6	23	3	12	260	
	% within Y9LG1.0	5.0%	.4%	24.2%		1.9%	11.9%	1.9%	6.2%	.4%	8.1%	5.4%	8.5%	2.3%	6.9%	2.3%	8.8%	1.2%	4.6%	00.0%	
	% within Y10LG1TO	23.6%	50.0%	31.3%		25.0%	27.2%	16.7%	15.5%	12.5%	22.6%	18.4%	11.1%	15.4%	11.5%	9.2%	11.7%	9.4%	9.8%	17.2%	
2.5	Count			2				1					2			1				6	
	% within Y9LG1.0			33.3%				16.7%					33.3%			16.7%				00.0%	
	% within Y10LG1TO			1.0%				3.3%					1.0%			1.5%				.4%	
3.0	Count	1		3			2	1	4		2		4		2	2	6		2	29	
	% within Y9LG1.0	3.4%		10.3%			6.9%	3.4%	13.8%		6.9%		13.8%		6.9%	6.9%	20.7%		6.9%	00.0%	
	% within Y10LG1TO	1.8%		1.5%			1.8%	3.3%	3.9%		2.2%		2.0%		1.3%	3.1%	3.1%		1.6%	1.9%	
3.5	Count														1					1	
	% within Y9LG1.0														00.0%					00.0%	
	% within Y10LG1TO														.6%					.1%	
4.0	Count	8		21		4	20	4	11	2	8	8	22	2	15	6	11		5	147	
	% within Y9LG1.0	5.4%		14.3%		2.7%	13.6%	2.7%	7.5%	1.4%	5.4%	5.4%	15.0%	1.4%	10.2%	4.1%	7.5%		3.4%	00.0%	
	% within Y10LG1TO	14.5%		10.4%		20.0%	17.5%	13.3%	10.7%	25.0%	8.6%	10.5%	11.1%	5.1%	9.6%	9.2%	5.6%		4.1%	9.7%	
4.5	Count	1		9		1	3	1	1		1	5	7	2	5	2	6		3	47	
	% within Y9LG1.0	2.1%		19.1%		2.1%	6.4%	2.1%	2.1%		2.1%	10.6%	14.9%	4.3%	10.6%	4.3%	12.8%		6.4%	00.0%	
	% within Y10LG1TO	1.8%		4.5%		5.0%	2.6%	3.3%	1.0%		1.1%	6.6%	3.5%	5.1%	3.2%	3.1%	3.1%		2.4%	3.1%	
5.0	Count			19		1	6	2	8	1	7	5	16	4	10	5	6	1	2	93	
	% within Y9LG1.0			20.4%		1.1%	6.5%	2.2%	8.6%	1.1%	7.5%	5.4%	17.2%	4.3%	10.8%	5.4%	6.5%	1.1%	2.2%	00.0%	
	% within Y10LG1TO			9.5%		5.0%	5.3%	6.7%	7.8%	12.5%	7.5%	6.6%	8.1%	10.3%	6.4%	7.7%	3.1%	3.1%	1.6%	6.2%	
5.5	Count			2		1	2		2		1		1		2		1	1	1	14	
	% within Y9LG1.0			14.3%		7.1%	14.3%		14.3%		7.1%		7.1%		14.3%		7.1%	7.1%	7.1%	00.0%	
	% within Y10LG1TO			1.0%		5.0%	1.8%		1.9%		1.1%		.5%		1.3%		.5%	3.1%	.8%	.9%	
6.0	Count	1		8		1	12	3	6	1	6	5	20	2	6	8	12	1	10	102	
	% within Y9LG1.0	1.0%		7.8%		1.0%	11.8%	2.9%	5.9%	1.0%	5.9%	4.9%	19.6%	2.0%	5.9%	7.8%	11.8%	1.0%	9.8%	00.0%	
	% within Y10LG1TO	1.8%		4.0%		5.0%	10.5%	10.0%	5.8%	12.5%	6.5%	6.6%	10.1%	5.1%	3.8%	12.3%	6.1%	3.1%	8.1%	6.7%	
6.5	Count	2		9			4	3	7	1	5	8	16	3	8	5	11	1	3	86	
	% within Y9LG1.0	2.3%		10.5%			4.7%	3.5%	8.1%	1.2%	5.8%	9.3%	18.6%	3.5%	9.3%	5.8%	12.8%	1.2%	3.5%	00.0%	
	% within Y10LG1TO	3.6%		4.5%			3.5%	10.0%	6.8%	12.5%	5.4%	10.5%	8.1%	7.7%	5.1%	7.7%	5.6%	3.1%	2.4%	5.7%	
7.0	Count	3		13		1	14	1	12		12	9	38	3	21	4	23	2	15	171	
	% within Y9LG1.0	1.8%		7.6%		.6%	8.2%	.6%	7.0%		7.0%	5.3%	22.2%	1.8%	12.3%	2.3%	13.5%	1.2%	8.8%	00.0%	
	% within Y10LG1TO	5.5%		6.5%		5.0%	12.3%	3.3%	11.7%		12.9%	11.8%	19.2%	7.7%	13.5%	6.2%	11.7%	6.3%	12.2%	11.3%	
7.5	Count	2		3			1		2	1	3	4	11	1	6	2	5	2	5	48	
	% within Y9LG1.0	4.2%		6.3%			2.1%		4.2%	2.1%	6.3%	8.3%	22.9%	2.1%	12.5%	4.2%	10.4%	4.2%	10.4%	00.0%	
	% within Y10LG1TO	3.6%		1.5%			.9%		1.9%	12.5%	3.2%	5.3%	5.6%	2.6%	3.8%	3.1%	2.6%	6.3%	4.1%	3.2%	
8.0	Count	2		8		2	3	2	8		9	2	7	3	21	3	20	3	10	103	
	% within Y9LG1.0	1.9%		7.8%		1.9%	2.9%	1.9%	7.8%		8.7%	1.9%	6.8%	2.9%	20.4%	2.9%	19.4%	2.9%	9.7%	00.0%	
	% within Y10LG1TO	3.6%		4.0%		10.0%	2.6%	6.7%	7.8%		9.7%	2.6%	3.5%	7.7%	13.5%	4.6%	10.2%	9.4%	8.1%	6.8%	
8.5	Count	1		3			2				3	3	5	5	9	6	4	3	4	48	
	% within Y9LG1.0	2.1%		6.3%			4.2%				6.3%	6.3%	10.4%	10.4%	18.8%	12.5%	8.3%	6.3%	8.3%	00.0%	
	% within Y10LG1TO	1.8%		1.5%			1.8%				3.2%	3.9%	2.5%	12.8%	5.8%	9.2%	2.0%	9.4%	3.3%	3.2%	
9.0	Count			3			1		10	1	5	5	9	7	16	7	32	8	23	127	
	% within Y9LG1.0			2.4%			.8%		7.9%	.8%	3.9%	3.9%	7.1%	5.5%	12.6%	5.5%	25.2%	6.3%	18.1%	00.0%	
	% within Y10LG1TO			1.5%			.9%		9.7%	12.5%	5.4%	6.6%	4.5%	17.9%	10.3%	10.8%	16.3%	25.0%	18.7%	8.4%	
9.5	Count	1		2			1				1	2			3	4	5	3	7	29	
	% within Y9LG1.0	3.4%		6.9%			3.4%				3.4%	6.9%			10.3%	13.8%	17.2%	10.3%	24.1%	00.0%	
	% within Y10LG1TO	1.8%		1.0%			.9%				1.1%	2.6%			1.9%	6.2%	2.6%	9.4%	5.7%	1.9%	
10.0	Count	1		3		1	2		3		1	2	5	1	5	4	16	4	13	61	
	% within Y9LG1.0	1.6%		4.9%		1.6%	3.3%		4.9%		1.6%	3.3%	8.2%	1.6%	8.2%	6.6%	26.2%	6.6%	21.3%	00.0%	
	% within Y10LG1TO																				

Ranks

	N	Mean Rank	Sum of Ranks
Y10LG1TO - Y9LG1TOT Negative Ranks	465 ^a	552.25	256796.50
Positive Ranks	808 ^b	685.77	554104.50
Ties	239 ^c		
Total	1512		

a. Y10LG1TO < Y9LG1TOT

b. Y10LG1TO > Y9LG1TOT

c. Y9LG1TOT = Y10LG1TO

Test Statistics^b

	Y10LG1TO - Y9LG1TOT
Z	-11.350 ^a
Asymp. Sig. (2-tailed)	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

The tables above and left show that 808 pupils increased their score in Y10, 465 decreased their score in Y10, and 239 pupils kept the same score. Therefore, more pupils had a positive improvement in their scores. (This positive change is statistically significant).

Correlations

	Y9LG1TOT	Y10LG1TO
Spearman's rho	Y9LG1TOT	Correlation Coefficient
		Sig. (2-tailed)
		N
	Y10LG1TO	Correlation Coefficient
		Sig. (2-tailed)
		N

** Correlation is significant at the .01 level (2-tailed).

The first test score (Y9LG1total) is weakly correlated with the second test score (Y10LG1total).

Item by item correlations Y10

Y10	Alab	G1	G2b	G4abc	LA1a	LA1b	LA1c	LA1d	LA1	LG1a	LG1b	LG1c	LG1d	LG1	HA4	HA7	HG4	HG7	
Alab		.20	.11	.27	.20	.14	.15	.14	.22	.17	.10	.19	.18	.23	.17	.04	.10	.13	Alab
G1	.20		.09	.30	.13	.12	.21	.18	.24	.15	.14	.20	.16	.23	.12	.05	.18	.13	G1
G2b	.11	.09		.13	.07	.05	.11	.06	.11	.05	.08	.12	.06	.11	.10	.12	.12	.10	G2b
G4abc	.27	.30	.13		.27	.22	.31	.28	.39	.26	.21	.34	.32	.41	.21	.15	.29	.33	G4abc
LA1a	.20	.13	.07	.27		.06	.30	.35	.60	.43	.08	.27	.19	.36	.16	.03	.15	.18	LA1a
LA1b	.14	.12	.05	.22	.06		.17	.14	.43	.06	.22	.12	.11	.15	.10	.06	.14	.11	LA1b
LA1c	.15	.21	.11	.31	.30	.17		.39	.74	.19	.14	.28	.25	.31	.16	.14	.16	.16	LA1c
LA1d	.14	.18	.06	.28	.35	.14	.39		.79	.22	.07	.27	.25	.33	.19	.16	.13	.21	LA1d
LA1	.22	.24	.11	.39	.60	.43	.74	.79		.32	.18	.36	.31	.43	.23	.16	.21	.25	LA1
LG1a	.17	.15	.05	.26	.43	.06	.19	.22	.32		.04	.43	.26	.64	.08	-.01	.12	.14	LG1a
LG1b	.10	.14	.08	.21	.08	.22	.14	.07	.18	.04		.21	.21	.36	.10	.06	.13	.09	LG1b
LG1c	.19	.20	.12	.34	.27	.12	.28	.27	.36	.43	.21		.48	.79	.12	.07	.23	.16	LG1c
LG1d	.18	.16	.06	.32	.19	.11	.25	.25	.31	.26	.21	.48		.80	.14	.08	.25	.18	LG1d
LG1	.23	.23	.11	.41	.36	.15	.31	.33	.43	.64	.36	.79	.80		.16	.08	.29	.22	LG1
HA4	.17	.12	.10	.21	.16	.10	.16	.19	.23	.08	.10	.12	.14	.16		.22	.15	.11	HA4
HA7	.04	.05	.12	.15	.03	.06	.14	.16	.16	-.01	.06	.07	.08	.08	.22		.16	.16	HA7
HG4	.10	.18	.12	.29	.15	.14	.16	.13	.21	.12	.13	.23	.25	.29	.15	.16		.29	HG4
HG7	.13	.13	.10	.33	.18	.11	.16	.21	.25	.14	.09	.16	.18	.22	.11	.16	.29		HG7

Note:

Most of these correlations involved about 1984 students and, because of the large numbers, most were significant at the 0.01 level (2-tailed)

Y10	AL Total	GE Total	KS3
AL Total		.53	.50
GE Total	.53		.60
KS3	.50	.60	

6.3 Level of agreement between pupil choices and teacher choices on A3 and G3

These are NOT scores as in the tables above, but non-ordered choices. Therefore, a different type of analysis has been conducted.

The following tables show the distribution of teacher choices for every pupil choice, with the percentages in the diagonal of the table indicating the level of agreement between the teachers and pupils. Following each table is a 'Kappa' table. Kappa tests measure the degree of agreement - in this case, how much the pupil choices are in agreement with teacher choices. A value of 1 in the table means perfect agreement; the closer the value is to 0, the poorer the agreement. The Kappa table also shows if this level of agreement value is statistically significant or not.

With such a large sample even quite small effects can be statistically significant, so it is important to pay attention to the size of the value in the Kappa table rather than its statistical significance. Even very small values may be statistically significant, but they still only represent a weak agreement between the teacher and pupils.

Analysis of Student-Y10A3a(like best) by Teacher-Y10A3(best mark)

Y10A3A * Y10A3BES Crosstabulation

			Teacher: whose answer would your students say would get the best mark from you?					Total
			A	B	C	D	E	
Y10 pupil: whose answer do you like the best?	A	Count	154	1	6	3	9	173
		% within Y10A3A	89.0%	.6%	3.5%	1.7%	5.2%	100.0%
	B	Count	167	1	13	8	32	221
		% within Y10A3A	75.6%	.5%	5.9%	3.6%	14.5%	100.0%
	C	Count	189	5	5	5	14	218
		% within Y10A3A	86.7%	2.3%	2.3%	2.3%	6.4%	100.0%
	D	Count	376	10	18	22	34	460
		% within Y10A3A	81.7%	2.2%	3.9%	4.8%	7.4%	100.0%
	E	Count	65		3	2	4	74
		% within Y10A3A	87.8%		4.1%	2.7%	5.4%	100.0%
	F	Count	111	1	6	2	7	127
		% within Y10A3A	87.4%	.8%	4.7%	1.6%	5.5%	100.0%
Total	Count	1062	18	51	42	100	1273	
	% within Y10A3A	83.4%	1.4%	4.0%	3.3%	7.9%	100.0%	

The majority of teachers selected option 'A' as the answer they thought most of the pupils would say teachers would award the best mark for. However, the pupils were a little more varied in their choices of which answer they liked best.

Eighty-nine percent of pupils that chose option 'A' as the answer they liked best had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, <1% of pupils who chose option 'B' as the answer they liked best had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 2% of pupils who chose option 'C' as the answer they liked best had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 5% of pupils who chose option 'D' as the answer they like best had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them and 5% of pupils who chose option 'E' as the answer they like best had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them.

None of the teachers picked option 'F' as the answer they thought most of the pupils would say they would award best mark for.

Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement Kappa	.008	.006	1.220	.223
N of Valid Cases	1273			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10A3a(like best) by Teacher-Y10A3(own approach)

Y10A3A * Y10A3OWN Crosstabulation

			Teacher: whose answer is closest to what you would do?					Total
			A	B	C	D	E	
Y10 pupil: whose answer do you like the best?	A	Count	157	3	5	8	3	176
		% within Y10A3A	89.2%	1.7%	2.8%	4.5%	1.7%	100.0%
	B	Count	181	3	25	16	8	233
		% within Y10A3A	77.7%	1.3%	10.7%	6.9%	3.4%	100.0%
	C	Count	195	6	10	9	7	227
		% within Y10A3A	85.9%	2.6%	4.4%	4.0%	3.1%	100.0%
	D	Count	412	16	23	18	16	485
		% within Y10A3A	84.9%	3.3%	4.7%	3.7%	3.3%	100.0%
	E	Count	69		1	3	2	75
		% within Y10A3A	92.0%		1.3%	4.0%	2.7%	100.0%
	F	Count	123	2	1	4		130
		% within Y10A3A	94.6%	1.5%	.8%	3.1%		100.0%
Total	Count	1137	30	65	58	36	1326	
	% within Y10A3A	85.7%	2.3%	4.9%	4.4%	2.7%	100.0%	

The majority of teachers selected option 'A' as the answer they thought was closest to what they would do themselves. However, the pupils were a little more varied in their choices of which answer they liked best.

Eighty-nine percent of pupils that chose option 'A' as the answer they liked best had teachers who agreed that choice would be what they would do themselves, 1% of pupils who chose option 'B' as the answer they liked best had teachers who agreed that choice would be what they would do themselves, 4% of pupils who chose option 'C' as the answer they liked best had teachers who agreed that choice would be what they would do themselves, 4% of pupils who chose option 'D' as the answer they like best had teachers who agreed that choice would be what they would do themselves and 3% of pupils who chose option 'E' as the answer they like best had teachers who agreed that choice would be what they would do themselves.

None of the teachers picked option 'F' as what they would do themselves.

Symmetric Measures

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement	Kappa	.000	.006	-.070	.944
N of Valid Cases		1326			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10A3b(own approach) by Teacher-Y10A3(best mark)

Y10A3B * Y10A3BES Crosstabulation

			Teacher: whose answer would your students say would get the best mark from you?					Total
			A	B	C	D	E	
Y10 pupil: whose answer is closest to what you would do?	A	Count	153	3	3	2	10	171
		% within Y10A3B	89.5%	1.8%	1.8%	1.2%	5.8%	100.0%
	B	Count	430	6	24	18	50	528
		% within Y10A3B	81.4%	1.1%	4.5%	3.4%	9.5%	100.0%
	C	Count	104	3	2	2	6	117
		% within Y10A3B	88.9%	2.6%	1.7%	1.7%	5.1%	100.0%
	D	Count	312	6	19	15	29	381
		% within Y10A3B	81.9%	1.6%	5.0%	3.9%	7.6%	100.0%
	E	Count	31		2		2	35
		% within Y10A3B	88.6%		5.7%		5.7%	100.0%
	F	Count	25		1	5	2	33
		% within Y10A3B	75.8%		3.0%	15.2%	6.1%	100.0%
Total		Count	1055	18	51	42	99	1265
		% within Y10A3B	83.4%	1.4%	4.0%	3.3%	7.8%	100.0%

The majority of teachers selected option 'A' as the answer they thought most of the pupils would say teachers would award the best mark for. However, the pupils were a little more varied in their choices of which answer they thought was closest to what they would do themselves.

Ninety percent of pupils that chose option 'A' as the answer they thought was closest to what they would do themselves had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 1% of pupils who chose option 'B' as the answer they thought was closest to what they would do themselves had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 2% of pupils who chose option 'C' as the answer they thought was closest to what they would do themselves had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 4% of pupils who chose option 'D' as the answer they thought was closest to what they would do themselves had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them and 6% of pupils who chose option 'E' as the answer they thought was closest to what they would do themselves had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them.

None of the teachers picked option 'F' as the answer they thought most of the pupils would say they would award best mark for.

Symmetric Measures

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement	Kappa	.007	.006	1.153	.249
N of Valid Cases		1265			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10A3b(own approach) by Teacher-Y10A3(own approach)

Y10A3B * Y10A3OWN Crosstabulation

			Teacher: whose answer is closest to what you would do?					Total
			A	B	C	D	E	
Y10 pupil: whose answer is closest to what you would do?	A	Count	154	5	4	9	3	175
		% within Y10A3B	88.0%	2.9%	2.3%	5.1%	1.7%	100.0%
	B	Count	467	10	32	28	15	552
		% within Y10A3B	84.6%	1.8%	5.8%	5.1%	2.7%	100.0%
	C	Count	108	3	2	3	4	120
		% within Y10A3B	90.0%	2.5%	1.7%	2.5%	3.3%	100.0%
	D	Count	337	10	25	16	13	401
		% within Y10A3B	84.0%	2.5%	6.2%	4.0%	3.2%	100.0%
	E	Count	31	1	2	1		35
		% within Y10A3B	88.6%	2.9%	5.7%	2.9%		100.0%
	F	Count	31	1		1	1	34
		% within Y10A3B	91.2%	2.9%		2.9%	2.9%	100.0%
Total	Count	1128	30	65	58	36	1317	
	% within Y10A3B	85.6%	2.3%	4.9%	4.4%	2.7%	100.0%	

The majority of teachers selected option 'A' as the answer they thought was closest to what they would do themselves. However, the pupils were a little more varied in their choices of which answer was closest to what they would do themselves.

Eighty-eight percent of pupils that chose option 'A' as the answer was closest to what they would do themselves had teachers who agreed that choice would be what they would do themselves, 2% of pupils who chose option 'B' as the answer was closest to what they would do themselves had teachers who agreed that choice would be what they would do themselves, 2% of pupils who chose option 'C' as the answer was closest to what they would do themselves had teachers who agreed that choice would be what they would do themselves, 4% of pupils who chose option 'D' as the answer was closest to what they would do themselves had teachers who agreed that choice would be what they would do themselves.

None of the pupils picked option 'E' as what they would do themselves and none of the teachers picked option 'F' as what they would do themselves.

Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement Kappa	-.004	.006	-.673	.501
N of Valid Cases	1317			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10A3c(best mark) by Teacher-Y10A3(best mark)

Y10A3C * Y10A3BES Crosstabulation

			Teacher: whose answer would your students say would get the best mark from you?					Total
			A	B	C	D	E	
Y10 pupil: whose answer would get the best mark from your teacher?	A	Count	279	2	10	14	20	325
		% within Y10A3C	85.8%	.6%	3.1%	4.3%	6.2%	100.0%
	B	Count	23		3	3	6	35
		% within Y10A3C	65.7%		8.6%	8.6%	17.1%	100.0%
	C	Count	208	7	6	11	14	246
		% within Y10A3C	84.6%	2.8%	2.4%	4.5%	5.7%	100.0%
	D	Count	90	1	4	3	13	111
		% within Y10A3C	81.1%	.9%	3.6%	2.7%	11.7%	100.0%
	E	Count	423	8	27	9	40	507
		% within Y10A3C	83.4%	1.6%	5.3%	1.8%	7.9%	100.0%
	F	Count	13			1	1	15
		% within Y10A3C	86.7%			6.7%	6.7%	100.0%
Total		Count	1036	18	50	41	94	1239
		% within Y10A3C	83.6%	1.5%	4.0%	3.3%	7.6%	100.0%

The majority of teachers selected option 'A' as the answer they thought most of the pupils would say teachers would award the best mark for. However, the pupils were a little more varied in their choices of which answer they thought would get the best mark from their teacher.

Eighty-six percent of pupils that chose option 'A' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 2% of pupils who chose option 'C' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 3% of pupils who chose option 'D' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them and 8% of pupils who chose option 'E' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them.

None of the teachers picked option 'F' as the answer they thought most of the pupils would say they would award best mark for and neither pupils nor teachers picked option 'B'.

Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement Kappa	.004	.010	.415	.678
N of Valid Cases	1239			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10A3c(best mark) by Teacher-Y10A3(own approach)

Y10A3C * Y10A3OWN Crosstabulation

			Teacher: whose answer is closest to what you would do?					Total
			A	B	C	D	E	
Y10 pupil: whose answer would get the best mark from your teacher?	A	Count	298	4	14	18	6	340
		% within Y10A3C	87.6%	1.2%	4.1%	5.3%	1.8%	100.0%
	B	Count	30		5	1	1	37
		% within Y10A3C	81.1%		13.5%	2.7%	2.7%	100.0%
	C	Count	217	11	14	7	9	258
		% within Y10A3C	84.1%	4.3%	5.4%	2.7%	3.5%	100.0%
	D	Count	104	1	6	7	4	122
		% within Y10A3C	85.2%	.8%	4.9%	5.7%	3.3%	100.0%
	E	Count	443	12	25	22	15	517
		% within Y10A3C	85.7%	2.3%	4.8%	4.3%	2.9%	100.0%
	F	Count	14			1		15
		% within Y10A3C	93.3%			6.7%		100.0%
Total		Count	1106	28	64	56	35	1289
		% within Y10A3C	85.8%	2.2%	5.0%	4.3%	2.7%	100.0%

The majority of teachers selected option 'A' as the answer they thought was closest to what they would do themselves. However, the pupils were a little more varied in their choices of which answer they thought would get the best mark from their teacher.

Eighty-eight percent of pupils that chose option 'A' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be what they would do themselves, 5% of pupils who chose option 'C' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be what they would do themselves, 6% of pupils who chose option 'D' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be what they would do themselves and 3% of pupils who chose option 'E' as the answer they thought would get the best mark from their teacher had teacher who agreed that choice would be what they would do themselves.

None of the teachers picked option 'F' as what they would do themselves and neither the pupils or the teachers picked option 'B'.

Symmetric Measures

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement	Kappa	.010	.009	1.149	.251
N of Valid Cases		1289			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10G3a(like best) by Teacher-Y10G3(best mark)

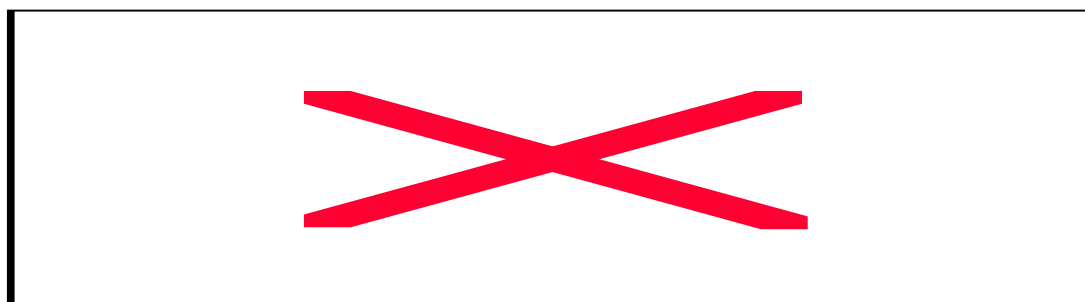
Y10G3A * Y10G3BES Crosstabulation

			Teacher: whose answer would your students say would get the best mark from you?				Total
			A	B	C	E	
Y10 pupil: whose answer do you like the best?	A	Count	26	8	324	26	384
		% within Y10G3A	6.8%	2.1%	84.4%	6.8%	100.0%
	B	Count	10	2	142	9	163
		% within Y10G3A	6.1%	1.2%	87.1%	5.5%	100.0%
	C	Count	26	5	241	20	292
		% within Y10G3A	8.9%	1.7%	82.5%	6.8%	100.0%
	D	Count	15	9	126	16	166
		% within Y10G3A	9.0%	5.4%	75.9%	9.6%	100.0%
	E	Count	7	4	119	10	140
		% within Y10G3A	5.0%	2.9%	85.0%	7.1%	100.0%
	F	Count	8	2	88	7	105
		% within Y10G3A	7.6%	1.9%	83.8%	6.7%	100.0%
Total	Count	92	30	1040	88	1250	
	% within Y10G3A	7.4%	2.4%	83.2%	7.0%	100.0%	

The majority of teachers selected option 'C' as the answer they thought most of the pupils would say teachers would award the best mark for. However, the pupils were a little more varied in their choices of which answer they liked best.

Seven percent of pupils that chose option 'A' as the answer they liked best had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 1% of pupils who chose option 'B' as the answer they liked best had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 83% of pupils who chose option 'C' as the answer they liked best had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them and 7% of pupils who chose option 'E' as the answer they like best had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them.

None of the teachers picked either options 'F' or 'D' as the answer they thought most of the pupils would say they would award best mark for.



This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10G3a(like best) by Teacher-Y10G3(own approach)

Y10G3A * Y10G3OWN Crosstabulation

			Teacher: whose answer is closest to what you would do?					Total
			A	C	D	E	F	
Y10 pupil: whose answer do you like the best?	A	Count	23	301	5	49	4	382
		% within Y10G3A	6.0%	78.8%	1.3%	12.8%	1.0%	100.0%
	B	Count	8	134	4	17	5	168
		% within Y10G3A	4.8%	79.8%	2.4%	10.1%	3.0%	100.0%
	C	Count	17	234	7	43	3	304
		% within Y10G3A	5.6%	77.0%	2.3%	14.1%	1.0%	100.0%
	D	Count	17	128	1	16	2	164
		% within Y10G3A	10.4%	78.0%	.6%	9.8%	1.2%	100.0%
	E	Count	11	109	4	17	1	142
		% within Y10G3A	7.7%	76.8%	2.8%	12.0%	.7%	100.0%
	F	Count	6	85	4	9	2	106
		% within Y10G3A	5.7%	80.2%	3.8%	8.5%	1.9%	100.0%
Total	Count	82	991	25	151	17	1266	
	% within Y10G3A	6.5%	78.3%	2.0%	11.9%	1.3%	100.0%	

The majority of teachers selected option 'C' as the answer they thought was closest to what they would do themselves. However, the pupils were a little more varied in their choices of which answer they liked best.

Six percent of pupils that chose option 'A' as the answer they liked best had teachers who agreed that choice would be what they would do themselves, 77% of pupils who chose option 'C' as the answer they liked best had teachers who agreed that choice would be what they would do themselves, 1% of pupils who chose option 'D' as the answer they like best had teachers who agreed that choice would be what they would do themselves, 12% of pupils who chose option 'E' as the answer they like best had teachers who agreed that choice would be what they would do themselves and 2% of pupils who chose option 'F' as the answer they like best had teachers who agreed that choice would be what they would do themselves.

None of the teachers picked option 'B' as the answer they thought most of the pupils would say they would award best mark for.

Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement Kappa	-.007	.010	-.753	.451
N of Valid Cases	1266			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10G3b(own approach) by Teacher-Y10G3(best mark)

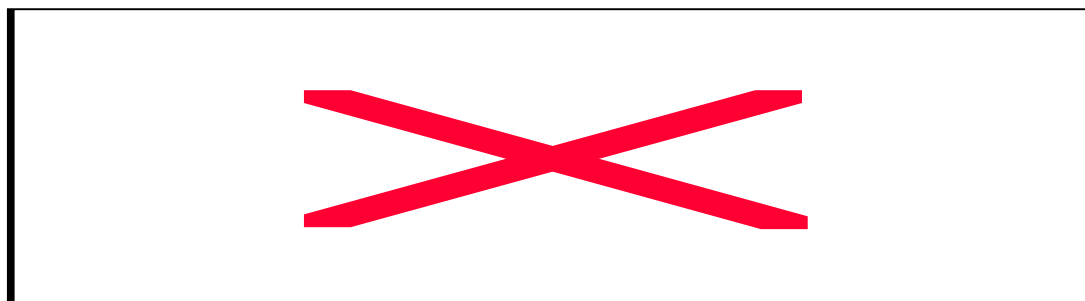
Y10G3B * Y10G3BES Crosstabulation

			Teacher: whose answer would your students say would get the best mark from you?				Total
			A	B	C	E	
Y10 pupil: whose answer is closest to what you would do?	A	Count	19	1	230	16	266
		% within Y10G3B	7.1%	.4%	86.5%	6.0%	100.0%
	B	Count	18	4	213	21	256
		% within Y10G3B	7.0%	1.6%	83.2%	8.2%	100.0%
	C	Count	22	7	201	13	243
		% within Y10G3B	9.1%	2.9%	82.7%	5.3%	100.0%
	D	Count	25	14	282	31	352
		% within Y10G3B	7.1%	4.0%	80.1%	8.8%	100.0%
	E	Count	7	2	101	8	118
		% within Y10G3B	5.9%	1.7%	85.6%	6.8%	100.0%
	F	Count		1	10		11
		% within Y10G3B		9.1%	90.9%		100.0%
Total	Count	91	29	1037	89	1246	
	% within Y10G3B	7.3%	2.3%	83.2%	7.1%	100.0%	

The majority of teachers selected option 'C' as the answer they thought most of the pupils would say teachers would award the best mark for. However, the pupils were a little more varied in their choices of which answer they thought was closest to what they would do themselves.

Seven percent of pupils that chose option 'A' as the answer they thought was closest to what they would do themselves had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 2% of pupils who chose option 'B' as the answer they thought was closest to what they would do themselves had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 83% of pupils who chose option 'C' as the answer they thought was closest to what they would do themselves had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them and 7% of pupils who chose option 'E' as the answer they thought was closest to what they would do themselves had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them.

None of the teachers picked either options 'F' or 'D' as the answer they thought most of the pupils would say they would award best mark for.



This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10G3b(own approach) by Teacher-Y10G3(own approach)

Y10G3B * Y10G3OWN Crosstabulation

			Teacher: whose answer is closest to what you would do?					Total
			A	C	D	E	F	
Y10 pupil: whose answer is closest to what you would do?	A	Count	14	212	2	35	1	264
		% within Y10G3B	5.3%	80.3%	.8%	13.3%	.4%	100.0%
	B	Count	11	206	8	35	3	263
		% within Y10G3B	4.2%	78.3%	3.0%	13.3%	1.1%	100.0%
	C	Count	17	196	5	28	3	249
		% within Y10G3B	6.8%	78.7%	2.0%	11.2%	1.2%	100.0%
	D	Count	31	275	5	36	7	354
		% within Y10G3B	8.8%	77.7%	1.4%	10.2%	2.0%	100.0%
	E	Count	7	92	3	15	3	120
		% within Y10G3B	5.8%	76.7%	2.5%	12.5%	2.5%	100.0%
	F	Count	1	9	1	1		12
		% within Y10G3B	8.3%	75.0%	8.3%	8.3%		100.0%
Total	Count	81	990	24	150	17	1262	
	% within Y10G3B	6.4%	78.4%	1.9%	11.9%	1.3%	100.0%	

The majority of teachers selected option 'C' as the answer they thought was closest to what they would do themselves. However, the pupils were a little more varied in their choices of which answer was closest to what they would do themselves.

Five percent of pupils that chose option 'A' as the answer was closest to what they would do themselves had teachers who agreed that choice would be what they would do themselves, 79% of pupils who chose option 'C' as the answer was closest to what they would do themselves had teachers who agreed that choice would be what they would do themselves, 1% of pupils who chose option 'D' as the answer was closest to what they would do themselves had teachers who agreed that choice would be what they would do themselves.

None of the teachers picked option 'B' as what they would do themselves and neither the teachers or pupils picked option 'F' as what they would do themselves.

Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement Kappa	-.003	.008	-.397	.692
N of Valid Cases	1262			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10G3c(best mark) by Teacher-Y10G3(best mark)

Y10G3C * Y10G3BES Crosstabulation

			Teacher: whose answer would your students say would get the best mark from you?				Total
			A	B	C	E	
Y10 pupil: whose answer would get the best mark from your teacher?	A	Count	6		40	5	51
		% within Y10G3C	11.8%		78.4%	9.8%	100.0%
	B	Count	25	4	232	20	281
		% within Y10G3C	8.9%	1.4%	82.6%	7.1%	100.0%
	C	Count	44	15	460	40	559
		% within Y10G3C	7.9%	2.7%	82.3%	7.2%	100.0%
	D	Count	1		53	8	62
		% within Y10G3C	1.6%		85.5%	12.9%	100.0%
	E	Count	13	7	147	9	176
		% within Y10G3C	7.4%	4.0%	83.5%	5.1%	100.0%
	F	Count	3	4	67	2	76
		% within Y10G3C	3.9%	5.3%	88.2%	2.6%	100.0%
Total		Count	92	30	999	84	1205
		% within Y10G3C	7.6%	2.5%	82.9%	7.0%	100.0%

The majority of teachers selected option 'C' as the answer they thought most of the pupils would say teachers would award the best mark for. However, the pupils were a little more varied in their choices of which answer they thought would get the best mark from their teacher.

Twelve percent of pupils that chose option 'A' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 1% of pupils who chose option 'B' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them, 82% of pupils who chose option 'C' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them and 5% of pupils who chose option 'E' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be the answer that pupils would think would get the best mark from them.

None of the teachers picked either options 'F' or 'D' as the answer they thought most of the pupils would say they would award best mark for.

Symmetric Measures

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement	Kappa	-.009	.012	-.761	.447
N of Valid Cases		1205			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

Analysis of Student-Y10G3c(best mark) by Teacher-Y10G3(own approach)

Y10G3C * Y10G3OWN Crosstabulation

			Teacher: whose answer is closest to what you would do?					Total
			A	C	D	E	F	
Y10 pupil: whose answer would get the best mark from your teacher?	A	Count	4	39	1	4		48
		% within Y10G3C	8.3%	81.3%	2.1%	8.3%		100.0%
	B	Count	9	236	2	29	4	280
		% within Y10G3C	3.2%	84.3%	.7%	10.4%	1.4%	100.0%
	C	Count	38	433	15	87	4	577
		% within Y10G3C	6.6%	75.0%	2.6%	15.1%	.7%	100.0%
	D	Count	4	48		8	1	61
		% within Y10G3C	6.6%	78.7%		13.1%	1.6%	100.0%
	E	Count	18	139	3	15	2	177
		% within Y10G3C	10.2%	78.5%	1.7%	8.5%	1.1%	100.0%
	F	Count	6	58	3	5	5	77
		% within Y10G3C	7.8%	75.3%	3.9%	6.5%	6.5%	100.0%
Total		Count	79	953	24	148	16	1220
		% within Y10G3C	6.5%	78.1%	2.0%	12.1%	1.3%	100.0%

The majority of teachers selected option 'C' as the answer they thought was closest to what they would do themselves. However, the pupils were a little more varied in their choices of which answer they thought would get the best mark from their teacher.

Eight percent of pupils that chose option 'A' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be what they would do themselves, 84% of pupils who chose option 'C' as the answer they thought would get the best mark from their teacher had teachers who agreed that choice would be what they would do themselves, 9% of pupils who chose option 'E' as the answer they thought would get the best mark from their teacher had teacher who agreed that choice would be what they would do themselves and 7% of pupils who chose option 'F' as the answer they thought would get the best mark from their teacher had teacher who agreed that choice would be what they would do themselves.

None of the teachers picked option 'B' as what they would do themselves.

Symmetric Measures

		Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Measure of Agreement	Kappa	-.026	.013	-1.993	.046
N of Valid Cases		1220			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

This Kappa test shows very poor agreement between the teachers and pupils.

6.4 *Sex differences*

The following tables report the results of analyses conducted on data of pupil scores, examining differences between male and female pupils. The Mann-Whitney test for independent groups was performed on the data. This test shows how the mean rank score for the female pupils compares with the mean rank score for the male pupils and whether this difference is statistically significant or not. The crosstabulation shows, for males and females, the distribution of scores for each year examined. With such a large sample even quite small effects can be statistically significant, so it is important to pay attention to the size of the difference rather than its statistical significance. Even very small differences may be statistically significant, but they still only represent a weak relationship.

Sex differences for scores on Y10A1a

Y10A1A * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10A1A 0	Count		206	175	381
	% within Y10A1A		54.1%	45.9%	100.0%
	% within SEX		26.9%	23.5%	25.2%
1	Count		23	25	48
	% within Y10A1A		47.9%	52.1%	100.0%
	% within SEX		3.0%	3.4%	3.2%
2	Count		10	17	27
	% within Y10A1A		37.0%	63.0%	100.0%
	% within SEX		1.3%	2.3%	1.8%
3	Count		528	528	1056
	% within Y10A1A		50.0%	50.0%	100.0%
	% within SEX		68.8%	70.9%	69.8%
Total	Count		767	745	1512
	% within Y10A1A		50.7%	49.3%	100.0%
	% within SEX		100.0%	100.0%	100.0%

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10A1A Female	767	746.96	572918.48
Male	745	766.32	570909.50
Total	1512		

Test Statistics¹

	Y10A1A
Mann-Whitney U	278390.5
Wilcoxon W	572918.5
Z	-1.075
Asymp. Sig. (2-tailed)	.282

¹. Grouping Variable: SEX

The difference between male and female pupils on score Y10A1a is not significant ($P=0.28$) even though males got a higher mean rank score than the female pupils (766 compared with 747).

Sex differences for scores on Y10G1

Y10G1 * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10G1 .0	Count		263	190	453
	% within Y10G1		58.1%	41.9%	100.0%
	% within SEX		34.3%	25.5%	30.0%
1.0	Count		38	42	80
	% within Y10G1		47.5%	52.5%	100.0%
	% within SEX		5.0%	5.6%	5.3%
2.0	Count		28	26	54
	% within Y10G1		51.9%	48.1%	100.0%
	% within SEX		3.7%	3.5%	3.6%
2.5	Count		177	180	357
	% within Y10G1		49.6%	50.4%	100.0%
	% within SEX		23.1%	24.2%	23.6%
3.0	Count		261	307	568
	% within Y10G1		46.0%	54.0%	100.0%
	% within SEX		34.0%	41.2%	37.6%
Total	Count		767	745	1512
	% within Y10G1		50.7%	49.3%	100.0%
	% within SEX		100.0%	100.0%	100.0%

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10G1 Female	767	717.56	550368.52
Male	745	796.59	593459.48
Total	1512		

Test Statistics^a

	Y10G1
Mann-Whitney U	255840.5
Wilcoxon W	550368.5
Z	-3.695
Asymp. Sig. (2-tailed)	.000

^a. Grouping Variable: SEX

The difference between male and female pupils on score Y10G1 is significant ($P<0.000$). Males got a higher mean rank score (797) than the female pupils (718).

Sex differences for scores on Y10G2b

Y10G2B * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10G2B	0	Count	66	60	126
		% within Y10G2B	52.4%	47.6%	100.0%
		% within SEX	8.6%	8.1%	8.3%
	1	Count	124	174	298
		% within Y10G2B	41.6%	58.4%	100.0%
		% within SEX	16.2%	23.4%	19.7%
	2	Count	195	192	387
		% within Y10G2B	50.4%	49.6%	100.0%
		% within SEX	25.4%	25.8%	25.6%
	3	Count	382	319	701
		% within Y10G2B	54.5%	45.5%	100.0%
		% within SEX	49.8%	42.8%	46.4%
Total	Count	767	745	1512	
	% within Y10G2B	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10G2B Female	767	785.85	602746.98
Male	745	726.28	541080.99
Total	1512		

Test Statistics^a

	Y10G2B
Mann-Whitney U	263196.0
Wilcoxon W	541081.0
Z	-2.835
Asymp. Sig. (2-tailed)	.005

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10G2b is significant ($P < 0.00$). Males got a higher mean rank score (786) than the female pupils (726).

Sex differences for scores on Y10G4a

Y10G4A * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10G4A	.0	Count	45	38	83
		% within Y10G4A	54.2%	45.8%	100.0%
		% within SEX	5.9%	5.1%	5.5%
	1.0	Count	51	43	94
		% within Y10G4A	54.3%	45.7%	100.0%
		% within SEX	6.6%	5.8%	6.2%
	2.0	Count	671	664	1335
		% within Y10G4A	50.3%	49.7%	100.0%
		% within SEX	87.5%	89.1%	88.3%
Total	Count	767	745	1512	
	% within Y10G4A	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10G4A Female	767	750.38	575540.48
Male	745	762.80	568287.49
Total	1512		

Test Statistics^a

	Y10G4A
Mann-Whitney U	281012.5
Wilcoxon W	575540.5
Z	-.991
Asymp. Sig. (2-tailed)	.321

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10G4a is not significant ($P = 0.32$). Males only got a slightly higher mean rank score (763) than the female pupils (750).

Sex differences for scores on Y10G4b

Y10G4B * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10G4B	.0	Count	462	441	903
		% within Y10G4B	51.2%	48.8%	100.0%
		% within SEX	60.2%	59.2%	59.7%
	.5	Count	72	73	145
		% within Y10G4B	49.7%	50.3%	100.0%
		% within SEX	9.4%	9.8%	9.6%
	1.0	Count	69	81	150
		% within Y10G4B	46.0%	54.0%	100.0%
		% within SEX	9.0%	10.9%	9.9%
	2.0	Count	164	150	314
		% within Y10G4B	52.2%	47.8%	100.0%
		% within SEX	21.4%	20.1%	20.8%
Total	Count	767	745	1512	
	% within Y10G4B	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10G4B Female	767	754.78	578919.51
Male	745	758.27	564908.48
Total	1512		

Test Statistics^a

	Y10G4B
Mann-Whitney U	284391.5
Wilcoxon W	578919.5
Z	-.176
Asymp. Sig. (2-tailed)	.860

^a. Grouping Variable: SEX

The difference between male and female pupils on score Y10G4b is not significant (P=0.86). Males only got a very slightly higher mean rank score (758) than the female pupils (755).

Sex differences for scores on Y10G4c

Y10G4C * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10G4C	.0	Count	418	411	829
		% within Y10G4C	50.4%	49.6%	100.0%
		% within SEX	54.5%	55.2%	54.8%
	.5	Count	67	53	120
		% within Y10G4C	55.8%	44.2%	100.0%
		% within SEX	8.7%	7.1%	7.9%
	1.0	Count	55	76	131
		% within Y10G4C	42.0%	58.0%	100.0%
		% within SEX	7.2%	10.2%	8.7%
	2.0	Count	227	205	432
		% within Y10G4C	52.5%	47.5%	100.0%
		% within SEX	29.6%	27.5%	28.6%
Total	Count	767	745	1512	
	% within Y10G4C	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10G4C Female	767	760.36	583197.00
Male	745	752.52	560631.01
Total	1512		

Test Statistics^a

	Y10G4C
Mann-Whitney U	282746.0
Wilcoxon W	560631.0
Z	-.388
Asymp. Sig. (2-tailed)	.698

^a. Grouping Variable: SEX

The difference between male and female pupils on score Y10G4c is not significant (P=0.70). Females got only a slightly higher mean rank score (760) than the male pupils (753).

Sex differences for scores on Y10G4abc

Y10G4ABC * SEX Crosstabulation

		SEX		Total
		Female	Male	
Y10G4ABC .0	Count	44	35	79
	% within Y10G4ABC	55.7%	44.3%	100.0%
	% within SEX	5.7%	4.7%	5.2%
.5	Count		1	1
	% within Y10G4ABC		100.0%	100.0%
	% within SEX		.1%	.1%
1.0	Count	41	37	78
	% within Y10G4ABC	52.6%	47.4%	100.0%
	% within SEX	5.3%	5.0%	5.2%
1.5	Count	3	3	6
	% within Y10G4ABC	50.0%	50.0%	100.0%
	% within SEX	.4%	.4%	.4%
2.0	Count	235	242	477
	% within Y10G4ABC	49.3%	50.7%	100.0%
	% within SEX	30.6%	32.5%	31.5%
2.5	Count	67	59	126
	% within Y10G4ABC	53.2%	46.8%	100.0%
	% within SEX	8.7%	7.9%	8.3%
3.0	Count	69	76	145
	% within Y10G4ABC	47.6%	52.4%	100.0%
	% within SEX	9.0%	10.2%	9.6%
3.5	Count	12	16	28
	% within Y10G4ABC	42.9%	57.1%	100.0%
	% within SEX	1.6%	2.1%	1.9%
4.0	Count	120	109	229
	% within Y10G4ABC	52.4%	47.6%	100.0%
	% within SEX	15.6%	14.6%	15.1%
4.5	Count	37	31	68
	% within Y10G4ABC	54.4%	45.6%	100.0%
	% within SEX	4.8%	4.2%	4.5%
5.0	Count	44	48	92
	% within Y10G4ABC	47.8%	52.2%	100.0%
	% within SEX	5.7%	6.4%	6.1%
6.0	Count	95	88	183
	% within Y10G4ABC	51.9%	48.1%	100.0%
	% within SEX	12.4%	11.8%	12.1%
Total	Count	767	745	1512
	% within Y10G4ABC	50.7%	49.3%	100.0%
	% within SEX	100.0%	100.0%	100.0%

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10G4ABC Female	767	757.14	580727.00
Male	745	755.84	563101.00
Total	1512		

Test Statistics^a

	Y10G4ABC
Mann-Whitney U	285216.000
Wilcoxon W	563101.000
Z	-.059
Asymp. Sig. (2-tailed)	.953

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10G4abc is not significant ($P=0.95$). Females got only a very slightly higher mean rank score (757) than the male pupils (756).

Sex differences for scores on Y10LA1a

Y10LA1A * SEX Crosstabulation

		SEX		Total
		Female	Male	
Y10LA1A 0	Count	453	410	863
	% within Y10LA1A	52.5%	47.5%	100.0%
	% within SEX	59.1%	55.0%	57.1%
1	Count	109	114	223
	% within Y10LA1A	48.9%	51.1%	100.0%
	% within SEX	14.2%	15.3%	14.7%
2	Count	205	221	426
	% within Y10LA1A	48.1%	51.9%	100.0%
	% within SEX	26.7%	29.7%	28.2%
Total	Count	767	745	1512
	% within Y10LA1A	50.7%	49.3%	100.0%
	% within SEX	100.0%	100.0%	100.0%

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10LA1A Female	767	741.03	568368.49
Male	745	772.43	575459.48
Total	1512		

Test Statistics^a

	Y10LA1A
Mann-Whitney U	273840.5
Wilcoxon W	568368.5
Z	-1.574
Asymp. Sig. (2-tailed)	.115

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10LA1a is not significant ($P=0.12$) even though males got a higher mean rank score (772) than the female pupils (741).

Sex differences for scores on Y10LA1b

Y10LA1B * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10LA1B 0	Count		156	174	330
	% within Y10LA1B		47.3%	52.7%	100.0%
	% within SEX		20.3%	23.4%	21.8%
2	Count		611	571	1182
	% within Y10LA1B		51.7%	48.3%	100.0%
	% within SEX		79.7%	76.6%	78.2%
Total	Count		767	745	1512
	% within Y10LA1B		50.7%	49.3%	100.0%
	% within SEX		100.0%	100.0%	100.0%

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10LA1B Female	767	767.74	588854.51
Male	745	744.93	554973.48
Total	1512		

Test Statistics^a

	Y10LA1B
Mann-Whitney U	277088.5
Wilcoxon W	554973.5
Z	-1.419
Asymp. Sig. (2-tailed)	.156

^a. Grouping Variable: SEX

The difference between male and female pupils on score Y10LA1b is not significant ($P=0.16$) even though females got a higher mean rank score (768) than the male pupils (745).

Sex differences for scores on Y10LA1c

Y10LA1C * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10LA1C 0	Count		215	216	431
	% within Y10LA1C		49.9%	50.1%	100.0%
	% within SEX		28.0%	29.0%	28.5%
2	Count		110	78	188
	% within Y10LA1C		58.5%	41.5%	100.0%
	% within SEX		14.3%	10.5%	12.4%
2.5	Count		82	88	170
	% within Y10LA1C		48.2%	51.8%	100.0%
	% within SEX		10.7%	11.8%	11.2%
3	Count		360	363	723
	% within Y10LA1C		49.8%	50.2%	100.0%
	% within SEX		46.9%	48.7%	47.8%
Total	Count		767	745	1512
	% within Y10LA1C		50.7%	49.3%	100.0%
	% within SEX		100.0%	100.0%	100.0%

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10LA1C Female	767	751.47	576374.00
Male	745	761.68	567454.00
Total	1512		

Test Statistics^a

	Y10LA1C
Mann-Whitney U	281846.0
Wilcoxon W	576374.0
Z	-.489
Asymp. Sig. (2-tailed)	.625

^a. Grouping Variable: SEX

The difference between male and female pupils on score Y10LA1c is not significant ($P=0.63$) even though males got a slightly higher mean rank score (762) than the female pupils (751).

Sex differences for scores on Y10LA1d

Y10LA1D * SEX Crosstabulation

		SEX		Total
		Female	Male	
Y10LA1D 0	Count	435	428	863
	% within Y10LA1D	50.4%	49.6%	100.0%
	% within SEX	56.7%	57.4%	57.1%
2	Count	191	178	369
	% within Y10LA1D	51.8%	48.2%	100.0%
	% within SEX	24.9%	23.9%	24.4%
3	Count	141	139	280
	% within Y10LA1D	50.4%	49.6%	100.0%
	% within SEX	18.4%	18.7%	18.5%
Total	Count	767	745	1512
	% within Y10LA1D	50.7%	49.3%	100.0%
	% within SEX	100.0%	100.0%	100.0%

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10LA1D Female	767	758.29	581610.52
Male	745	754.65	562217.50
Total	1512		

Test Statistics^a

	Y10LA1D
Mann-Whitney U	284332.5
Wilcoxon W	562217.5
Z	-.182
Asymp. Sig. (2-tailed)	.856

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10LA1d is not significant ($P=0.86$) - females got only a very slightly higher mean rank score (758) than the male pupils (755).

Sex differences for scores on Y10LA1abcd

Y10LA1TO * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10LA1TO .0	Count	42	59	101	
	% within Y10LA1TO	41.6%	58.4%	100.0%	
	% within SEX	5.5%	7.9%	6.7%	
	Count	5	8	13	
1.0	% within Y10LA1TO	38.5%	61.5%	100.0%	
	% within SEX	.7%	1.1%	.9%	
2.0	Count	126	122	248	
	% within Y10LA1TO	50.8%	49.2%	100.0%	
	% within SEX	16.4%	16.4%	16.4%	
	Count	5	5	10	
2.5	% within Y10LA1TO	50.0%	50.0%	100.0%	
	% within SEX	.7%	.7%	.7%	
3.0	Count	32	20	52	
	% within Y10LA1TO	61.5%	38.5%	100.0%	
	% within SEX	4.2%	2.7%	3.4%	
	Count		2	2	
3.5	% within Y10LA1TO		100.0%	100.0%	
	% within SEX		.3%	.1%	
4.0	Count				
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Sex differences for scores on Y10LG1a

Y10LG1A * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10LG1A	.0	Count	474	413	887
		% within Y10LG1A	53.4%	46.6%	100.0%
		% within SEX	61.8%	55.4%	58.7%
	1.0	Count	158	172	330
		% within Y10LG1A	47.9%	52.1%	100.0%
		% within SEX	20.6%	23.1%	21.8%
	2.0	Count	135	160	295
		% within Y10LG1A	45.8%	54.2%	100.0%
		% within SEX	17.6%	21.5%	19.5%
Total	Count	767	745	1512	
	% within Y10LG1A	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10LG1A Female	767	731.46	561026.00
Male	745	782.28	582801.99
Total	1512		

Test Statistics^a

	Y10LG1A
Mann-Whitney U	266498.0
Wilcoxon W	561026.0
Z	-2.562
Asymp. Sig. (2-tailed)	.010

^a. Grouping Variable: SEX

The difference between male and female pupils on score Y10LG1a is not significant (P=0.10) even though males got a higher mean rank score (782) than the female pupils (731).

Sex differences for scores on Y10LG1b

Y10LG1B * SEX Crosstabulation

		SEX		Total	
		Female	Male		
Y10LG1B	.0	Count	65	67	132
		% within Y10LG1B	49.2%	50.8%	100.0%
		% within SEX	8.5%	9.0%	8.7%
	2.0	Count	702	678	1380
		% within Y10LG1B	50.9%	49.1%	100.0%
		% within SEX	91.5%	91.0%	91.3%
Total	Count	767	745	1512	
	% within Y10LG1B	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10LG1B Female	767	758.43	581717.49
Male	745	754.51	562110.50
Total	1512		

Test Statistics^a

	Y10LG1B
Mann-Whitney U	284225.5
Wilcoxon W	562110.5
Z	-.357
Asymp. Sig. (2-tailed)	.721

^a. Grouping Variable: SEX

The difference between male and female pupils on score Y10LG1b is not significant (P=0.72) - females got only a slightly higher mean rank score (758) than the male pupils (755).

Sex differences for scores on Y10LG1c

Y10LG1C * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10LG1C	.0	Count	151	159	310
		% within Y10LG1C	48.7%	51.3%	100.0%
		% within SEX	19.7%	21.3%	20.5%
	2.0	Count	228	195	423
		% within Y10LG1C	53.9%	46.1%	100.0%
		% within SEX	29.7%	26.2%	28.0%
	2.5	Count	39	51	90
		% within Y10LG1C	43.3%	56.7%	100.0%
		% within SEX	5.1%	6.8%	6.0%
	3.0	Count	349	340	689
		% within Y10LG1C	50.7%	49.3%	100.0%
		% within SEX	45.5%	45.6%	45.6%
Total	Count	767	745	1512	
	% within Y10LG1C	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10LG1C Female	767	756.83	580489.98
Male	745	756.16	563338.00
Total	1512		

Test Statistics^a

	Y10LG1C
Mann-Whitney U	285453.0
Wilcoxon W	563338.0
Z	-.032
Asymp. Sig. (2-tailed)	.974

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10LG1c is not significant ($P=0.97$) - females and males got an almost identical mean rank score (757 and 756 respectively).

Sex differences for scores on Y10LG1d

Y10LG1D * SEX Crosstabulation

			SEF		Total
			Female	Male	
Y10LG1D	.0	Count	279	268	547
		% within Y10LG1D	51.0%	49.0%	100.0%
		% within SEX	36.4%	36.0%	36.2%
	2.0	Count	88	90	178
		% within Y10LG1D	49.4%	50.6%	100.0%
		% within SEX	11.5%	12.1%	11.8%
	2.5	Count	81	98	179
		% within Y10LG1D	45.3%	54.7%	100.0%
		% within SEX	10.6%	13.2%	11.8%
	3.0	Count	319	289	608
		% within Y10LG1D	52.5%	47.5%	100.0%
		% within SEX	41.6%	38.8%	40.2%
Total	Count	767	745	1512	
	% within Y10LG1D	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10LG1D Female	767	761.39	583984.50
Male	745	751.47	559843.49
Total	1512		

Test Statistics^a

	Y10LG1D
Mann-Whitney U	281958.5
Wilcoxon W	559843.5
Z	-.470
Asymp. Sig. (2-tailed)	.639

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10LG1d is not significant ($P=0.64$) - even though females got a slightly higher mean rank score (761) than the male pupils (751).

Sex differences for scores on Y10LG1abcd

Y10LG1TO * SEX Crosstabulation				
		SEX		Total
		Female	Male	
Y10LG1TO .0	Count	25	30	55
	% within Y10LG1TO	45.5%	54.5%	100.0%
	% within SEX	3.3%	4.0%	3.6%
1.0	Count	1	1	2
	% within Y10LG1TO	50.0%	50.0%	100.0%
	% within SEX	.1%	.1%	.1%
2.0	Count	98	103	201
	% within Y10LG1TO	48.8%	51.2%	100.0%
	% within SEX	12.8%	13.8%	13.3%
2.5	Count	1		1
	% within Y10LG1TO	100.0%		100.0%
	% within SEX	.1%		.1%
3.0	Count	13	7	20
	% within Y10LG1TO	65.0%	35.0%	100.0%
	% within SEX	1.7%	.9%	1.3%
4.0	Count	60	54	114
	% within Y10LG1TO	52.6%	47.4%	100.0%
	% within SEX	7.8%	7.2%	7.5%
4.5	Count	18	12	30
	% within Y10LG1TO	60.0%	40.0%	100.0%
	% within SEX	2.3%	1.6%	2.0%
5.0	Count	65	38	103
	% within Y10LG1TO	63.1%	36.9%	100.0%
	% within SEX	8.5%	5.1%	6.8%
5.5	Count	3	5	8
	% within Y10LG1TO	37.5%	62.5%	100.0%
	% within SEX	.4%	.7%	.5%
6.0	Count	48	45	93
	% within Y10LG1TO	51.6%	48.4%	100.0%
	% within SEX	6.3%	6.0%	6.2%
6.5	Count	31	45	76
	% within Y10LG1TO	40.8%	59.2%	100.0%
	% within SEX	4.0%	6.0%	5.0%
7.0	Count	105	93	198
	% within Y10LG1TO	53.0%	47.0%	100.0%
	% within SEX	13.7%	12.5%	13.1%
7.5	Count	20	19	39
	% within Y10LG1TO	51.3%	48.7%	100.0%
	% within SEX	2.6%	2.6%	2.6%
8.0	Count	78	78	156
	% within Y10LG1TO	50.0%	50.0%	100.0%
	% within SEX	10.2%	10.5%	10.3%
8.5	Count	23	42	65
	% within Y10LG1TO	35.4%	64.6%	100.0%
	% within SEX	3.0%	5.6%	4.3%
9.0	Count	99	97	196
	% within Y10LG1TO	50.5%	49.5%	100.0%
	% within SEX	12.9%	13.0%	13.0%
9.5	Count	16	16	32
	% within Y10LG1TO	50.0%	50.0%	100.0%
	% within SEX	2.1%	2.1%	2.1%
10.0	Count	63	60	123
	% within Y10LG1TO	51.2%	48.8%	100.0%
	% within SEX	8.2%	8.1%	8.1%
Total	Count	767	745	1512

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10LG1TO Female	767	749.29	574702.98
Male	745	763.93	569124.98
Total	1512		

Test Statistics^a

	Y10LG1TO
Mann-Whitney U	280175.00
Wilcoxon W	574703.00
Z	-.655
Asymp. Sig. (2-tailed)	.512

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10LG1abcd is not significant (P=0.51) - even though males got a higher mean rank score (764) than the female pupils (749).

Sex differences for scores on Y10HA4

Y10HA4 * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10HA4	0	Count	138	160	298
		% within Y10HA4	46.3%	53.7%	100.0%
		% within SEX	18.0%	21.5%	19.7%
	1	Count	359	340	699
		% within Y10HA4	51.4%	48.6%	100.0%
		% within SEX	46.8%	45.6%	46.2%
	2	Count	91	77	168
		% within Y10HA4	54.2%	45.8%	100.0%
		% within SEX	11.9%	10.3%	11.1%
	3	Count	179	168	347
		% within Y10HA4	51.6%	48.4%	100.0%
		% within SEX	23.3%	22.6%	22.9%
Total	Count	767	745	1512	
	% within Y10HA4	50.7%	49.3%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10HA4 Female	767	771.00	591360.51
Male	745	741.57	552467.52
Total	1512		

Test Statistics^a

	Y10HA4
Mann-Whitney U	274582.5
Wilcoxon W	552467.5
Z	-1.397
Asymp. Sig. (2-tailed)	.162

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10HA4 is not significant (P=0.16) - even though females got a higher mean rank score (771) than the male pupils (742).

Sex differences for scores on Y10HA7

Y10HA7 * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10HA7	0	Count	288	390	678
		% within Y10HA7	42.5%	57.5%	100.0%
		% within SEX	37.5%	52.3%	44.8%
	1	Count	415	302	717
		% within Y10HA7	57.9%	42.1%	100.0%
		% within SEX	54.1%	40.5%	47.4%
	2	Count	46	37	83
		% within Y10HA7	55.4%	44.6%	100.0%
		% within SEX	6.0%	5.0%	5.5%
	3	Count	18	16	34
		% within Y10HA7	52.9%	47.1%	100.0%
		% within SEX	2.3%	2.1%	2.2%
Total	Count	767	745	1512	
	% within Y10HA7	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10HA7 Female	767	809.85	621151.98
Male	745	701.58	522676.02
Total	1512		

Test Statistics^a

	Y10HA7
Mann-Whitney U	244791.0
Wilcoxon W	522676.0
Z	-5.379
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10HA7 is significant ($P < 0.000$) - females got a higher mean rank score (810) than the male pupils (702).

Sex differences for scores on Y10HG4

Y10HG4 * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10HG4	0	Count	210	235	445
		% within Y10HG4	47.2%	52.8%	100.0%
		% within SEX	27.4%	31.5%	29.4%
	1	Count	302	271	573
		% within Y10HG4	52.7%	47.3%	100.0%
		% within SEX	39.4%	36.4%	37.9%
	2	Count	62	84	146
		% within Y10HG4	42.5%	57.5%	100.0%
		% within SEX	8.1%	11.3%	9.7%
	3	Count	193	155	348
		% within Y10HG4	55.5%	44.5%	100.0%
		% within SEX	25.2%	20.8%	23.0%
Total	Count	767	745	1512	
	% within Y10HG4	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10HG4 Female	767	774.31	593897.50
Male	745	738.16	549930.50
Total	1512		

Test Statistics^a

	Y10HG4
Mann-Whitney U	272045.5
Wilcoxon W	549930.5
Z	-1.690
Asymp. Sig. (2-tailed)	.091

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10HG4 is not significant ($P = 0.09$) - even though females got a higher mean rank score (774) than the male pupils (738).

Sex differences for scores on Y10HG7

Y10HG7 * SEX Crosstabulation

			SEX		Total
			Female	Male	
Y10HG7	0	Count	494	535	1029
		% within Y10HG7	48.0%	52.0%	100.0%
		% within SEX	64.4%	71.8%	68.1%
	1	Count	51	44	95
		% within Y10HG7	53.7%	46.3%	100.0%
		% within SEX	6.6%	5.9%	6.3%
	2	Count	179	134	313
		% within Y10HG7	57.2%	42.8%	100.0%
		% within SEX	23.3%	18.0%	20.7%
	3	Count	43	32	75
		% within Y10HG7	57.3%	42.7%	100.0%
		% within SEX	5.6%	4.3%	5.0%
Total	Count	767	745	1512	
	% within Y10HG7	50.7%	49.3%	100.0%	
	% within SEX	100.0%	100.0%	100.0%	

Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10HG7 Female	767	784.96	602061.01
Male	745	727.20	541767.01
Total	1512		

Test Statistics^a

	Y10HG7
Mann-Whitney U	263882.0
Wilcoxon W	541767.0
Z	-3.128
Asymp. Sig. (2-tailed)	.002

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10HG7 is significant ($P < 0.002$) - females got a higher mean rank score (785) than the male pupils (727).

Sex differences for choices on Y10A3a

Y10A3A * Sex of student Crosstabulation

			Sex of student		Total
			Female	Male	
Y10A3A	A	Count	96	98	194
		% within Y10A3A	49.5%	50.5%	100.0%
		% within Sex of student	12.8%	13.5%	13.1%
	B	Count	136	123	259
		% within Y10A3A	52.5%	47.5%	100.0%
		% within Sex of student	18.1%	16.9%	17.5%
	C	Count	132	126	258
		% within Y10A3A	51.2%	48.8%	100.0%
		% within Sex of student	17.6%	17.3%	17.4%
	D	Count	295	241	536
		% within Y10A3A	55.0%	45.0%	100.0%
		% within Sex of student	39.2%	33.1%	36.2%
	E	Count	29	55	84
		% within Y10A3A	34.5%	65.5%	100.0%
		% within Sex of student	3.9%	7.6%	5.7%
	F	Count	64	84	148
		% within Y10A3A	43.2%	56.8%	100.0%
		% within Sex of student	8.5%	11.6%	10.0%
Total		Count	752	727	1479
		% within Y10A3A	50.8%	49.2%	100.0%
		% within Sex of student	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.585 ^a	5	.005
Likelihood Ratio	16.732	5	.005
Linear-by-Linear Association	1.855	1	.173
N of Valid Cases	1479		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 41.29.

The difference between male and female pupils on score Y10A3a is significant ($P = 0.00$). Female pupils were more likely to say choose options 'B' and 'D' and males were more divided in their choices. For instance, 12% of the male pupils chose option 'F' compared with only 8% of the female pupils.

(D was the most popular choice for both sexes, but girls favoured it even more than boys [by a difference of 6 %]. There was little difference between girls and boys for choices A, B and C, but more boys than girls chose E and F, though these were the two least popular choices for both sexes.)

Sex differences for choices on Y10A3b

Y10A3B * Sex of student Crosstabulation

			Sex of student		Total
			Female	Male	
Y10A3B	A	Count	102	88	190
		% within Y10A3B	53.7%	46.3%	100.0%
		% within Sex of student	13.7%	12.2%	12.9%
	B	Count	333	290	623
		% within Y10A3B	53.5%	46.5%	100.0%
		% within Sex of student	44.6%	40.2%	42.4%
	C	Count	63	68	131
		% within Y10A3B	48.1%	51.9%	100.0%
		% within Sex of student	8.4%	9.4%	8.9%
	D	Count	217	229	446
		% within Y10A3B	48.7%	51.3%	100.0%
		% within Sex of student	29.0%	31.7%	30.4%
	E	Count	13	25	38
		% within Y10A3B	34.2%	65.8%	100.0%
		% within Sex of student	1.7%	3.5%	2.6%
	F	Count	19	22	41
		% within Y10A3B	46.3%	53.7%	100.0%
		% within Sex of student	2.5%	3.0%	2.8%
Total	Count	747	722	1469	
	% within Y10A3B	50.9%	49.1%	100.0%	
	% within Sex of student	100.0%	100.0%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.099 ^a	5	.151
Likelihood Ratio	8.166	5	.147
Linear-by-Linear Association	5.336	1	.021
N of Valid Cases	1469		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.68.

The difference between male and female pupils on score Y10A3b is not significant ($P=0.15$). Male and female pupils were both more likely to choose option 'B' (40% and 45% respectively).

(B was the most popular choice for both sexes, but girls favoured it even more than boys [by a difference of 5 %]. The differences between girls and boys for other choices was slight and overall the differences are not significant.)

Sex differences for choices on Y10A3c

Y10A3C * Sex of student Crosstabulation

			Sex of student		Total
			Female	Male	
Y10A3C	A	Count	196	174	370
		% within Y10A3C	53.0%	47.0%	100.0%
		% within Sex of student	26.9%	24.7%	25.8%
	B	Count	15	23	38
		% within Y10A3C	39.5%	60.5%	100.0%
		% within Sex of student	2.1%	3.3%	2.6%
	C	Count	157	138	295
		% within Y10A3C	53.2%	46.8%	100.0%
		% within Sex of student	21.5%	19.6%	20.6%
	D	Count	57	79	136
		% within Y10A3C	41.9%	58.1%	100.0%
		% within Sex of student	7.8%	11.2%	9.5%
	E	Count	299	280	579
		% within Y10A3C	51.6%	48.4%	100.0%
		% within Sex of student	41.0%	39.7%	40.4%
	F	Count	5	11	16
		% within Y10A3C	31.3%	68.8%	100.0%
		% within Sex of student	.7%	1.6%	1.1%
Total		Count	729	705	1434
		% within Y10A3C	50.8%	49.2%	100.0%
		% within Sex of student	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.250 ^a	5	.068
Likelihood Ratio	10.333	5	.066
Linear-by-Linear Association	.578	1	.447
N of Valid Cases	1434		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.87.

The difference between male and female pupils on score Y10A3c is not significant ($P=0.07$). Male and female pupils were both more likely to choose option 'E' (40% and 41% respectively).

(E was the most popular choice for both sexes, and the difference between girls and boys was slight [just over 1 %]. A and C were also popular but the differences between girls and boys for these and other choices was also slight, with the greatest difference being on choice D [chosen by 3 % more boys than girls]. Overall the differences are not significant.)

Sex differences for choices on Y10G3a

Y10G3A * Sex of student Crosstabulation

			Sex of student		Total
			Female	Male	
Y10G3A	A	Count	225	226	451
		% within Y10G3A	49.9%	50.1%	100.0%
		% within Sex of student	30.2%	31.2%	30.7%
	B	Count	105	82	187
		% within Y10G3A	56.1%	43.9%	100.0%
		% within Sex of student	14.1%	11.3%	12.7%
	C	Count	176	189	365
		% within Y10G3A	48.2%	51.8%	100.0%
		% within Sex of student	23.6%	26.1%	24.8%
	D	Count	91	94	185
		% within Y10G3A	49.2%	50.8%	100.0%
		% within Sex of student	12.2%	13.0%	12.6%
	E	Count	93	66	159
		% within Y10G3A	58.5%	41.5%	100.0%
		% within Sex of student	12.5%	9.1%	10.8%
	F	Count	55	68	123
		% within Y10G3A	44.7%	55.3%	100.0%
		% within Sex of student	7.4%	9.4%	8.4%
Total	Count	745	725	1470	
	% within Y10G3A	50.7%	49.3%	100.0%	
	% within Sex of student	100.0%	100.0%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.031 ^a	5	.108
Likelihood Ratio	9.062	5	.107
Linear-by-Linear Association	.009	1	.923
N of Valid Cases	1470		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 60.66.

The difference between male and female pupils on score Y10G3a is not significant (P=0.11). Male and female pupils were both more likely to choose option 'A' (31% and 30% respectively) or option 'C' (26% and 24% respectively).

Sex differences for choices on Y10G3b

Y10G3B * Sex of student Crosstabulation

			Sex of student		Total
			Female	Male	
Y10G3B	A	Count	151	165	316
		% within Y10G3B	47.8%	52.2%	100.0%
		% within Sex of student	20.3%	22.9%	21.6%
	B	Count	171	119	290
		% within Y10G3B	59.0%	41.0%	100.0%
		% within Sex of student	23.0%	16.5%	19.8%
	C	Count	144	156	300
		% within Y10G3B	48.0%	52.0%	100.0%
		% within Sex of student	19.4%	21.7%	20.5%
	D	Count	209	200	409
		% within Y10G3B	51.1%	48.9%	100.0%
		% within Sex of student	28.1%	27.8%	27.9%
	E	Count	65	70	135
		% within Y10G3B	48.1%	51.9%	100.0%
		% within Sex of student	8.7%	9.7%	9.2%
	F	Count	4	10	14
		% within Y10G3B	28.6%	71.4%	100.0%
		% within Sex of student	.5%	1.4%	1.0%
Total	Count	744	720	1464	
	% within Y10G3B	50.8%	49.2%	100.0%	
	% within Sex of student	100.0%	100.0%	100.0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.989 ^a	5	.023
Likelihood Ratio	13.122	5	.022
Linear-by-Linear Association	.606	1	.436
N of Valid Cases	1464		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.89.

The difference between male and female pupils on score Y10G3b is significant (P=0.02). Females were more likely to say choose options 'A', 'B' and 'D'. Males agreed with females in picking 'A' and 'D' but they were less likely to choose option 'B'.

(D was the most popular choice [28 % for both sexes] but A, B and C were also popular [about 20 % each]. The differences between girls and boys were slight, except for B, which was favoured by 6.5 % more of the girls than of the boys. Overall the differences are significant - because of B, presumably.)

Sex differences for choices on Y10G3c

Y10G3C * Sex of student Crosstabulation

			Sex of student		Total
			Female	Male	
Y10G3C	A	Count	23	35	58
		% within Y10G3C	39.7%	60.3%	100.0%
		% within Sex of student	3.2%	5.0%	4.1%
	B	Count	172	143	315
		% within Y10G3C	54.6%	45.4%	100.0%
		% within Sex of student	24.1%	20.4%	22.2%
	C	Count	361	320	681
		% within Y10G3C	53.0%	47.0%	100.0%
		% within Sex of student	50.5%	45.6%	48.1%
	D	Count	31	41	72
		% within Y10G3C	43.1%	56.9%	100.0%
		% within Sex of student	4.3%	5.8%	5.1%
	E	Count	101	105	206
		% within Y10G3C	49.0%	51.0%	100.0%
		% within Sex of student	14.1%	15.0%	14.5%
	F	Count	27	57	84
		% within Y10G3C	32.1%	67.9%	100.0%
		% within Sex of student	3.8%	8.1%	5.9%
	Total	Count	715	701	1416
		% within Y10G3C	50.5%	49.5%	100.0%
		% within Sex of student	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.665 ^a	5	.001
Likelihood Ratio	19.932	5	.001
Linear-by-Linear Association	6.305	1	.012
N of Valid Cases	1416		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 28.71.

The difference between male and female pupils on score Y10G3c is significant ($P=0.001$). Female and male pupils were both most likely to choose option 'C' (51% and 46% respectively) but males were more divided in their choices, being more likely than females to choose option 'F' (8% compared with only 4% of the females pupils) and option 'D' (6% compared with only 4% of the female pupils).

(C was by far the most popular choice [but chosen by 5 % more of the girls than of the boys], with B the next most popular [again chosen by more of the girls, with a difference of nearly 4 %]. The largest difference amongst the other choices was F, chosen by 4 % more of boys than of girls. Overall, the differences are significant.)

Sex differences for scores on Y10totalALGEBRA

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Ranks

SEX	N	Mean Rank	Sum of Ranks
Y10ALTOT Female	767	761.46	584039.51
Male	745	751.39	559788.52
Total	1512		

Test Statistics¹

	Y10ALTOT
Mann-Whitney U	281903.50
Wilcoxon W	559788.50
Z	-.449
Asymp. Sig. (2-tailed)	.654

¹. Grouping Variable: SEX

The difference between male and female pupils on score Y10totalALGEBRA is not significant ($P=0.65$) - females got a slightly higher mean rank score (761) than the male pupils (751).

Sex differences for scores on Y10totalGEOMETRY

Table too large to fit on page

Ranks				
	SEX	N	Mean Rank	Sum of Ranks
Y10GETOT	Female	767	755.02	579097.50
	Male	745	758.03	564730.51
	Total	1512		

Test Statistics ^a	
	Y10GETOT
Mann-Whitney U	284569.500
Wilcoxon W	579097.500
Z	-.134
Asymp. Sig. (2-tailed)	.893

a. Grouping Variable: SEX

The difference between male and female pupils on score Y10totalGEOMETRY is not significant (P=0.89) - males got a very slightly higher mean rank score (758) than the female pupils (755).

Sex differences for scores on Y9KS3score(converted)

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Ranks				
	SEX	N	Mean Rank	Sum of Ranks
KS3	Female	761	716.74	545442.48
	Male	738	784.29	578807.49
	Total	1499		

Test Statistics ^a	
	KS3
Mann-Whitney U	255501.5
Wilcoxon W	545442.5
Z	-3.021
Asymp. Sig. (2-tailed)	.003

a. Grouping Variable: SEX

The difference between male and female pupils on score Y9KS3 converted is significant (P=0.003) - males got a higher mean rank score (784) than the female pupils (717).

7 TEACHER SURVEY

The number of students who took the Proof Survey in all three years (8, 9 and 10) was 1512. These 1512 students came from 111 classes in a total of 54 schools (compared to 96 classes in 59 schools in Year 9, and 114 classes in 63 schools in Year 8). The fact that so many classes were involved in Year 10, despite the reduction in school and student numbers is because many schools attempted to test all the previous year's proof students even if they had moved class. The Year 10 students came from 1 class in 22 schools, 2 classes in 18 schools, 3 classes in 9 schools, 4 classes in 2 schools, 5 classes in 2 schools and 8 classes in 1 school. Where more than 2 classes were involved in a school, the numbers in some of these classes were very small.

The 111 classes were taught by 110 teachers (ie 2 of the classes were taught by the same teacher). We have information about 102 of these teachers, mostly taken from the Year 10 Teacher Questionnaire, but in a few cases taken from earlier questionnaires. Altogether, 99 teachers returned the Year 10 Teacher Questionnaire. Most of these 99 teachers completed all or most of the questionnaire and where appropriate (eg not for questions A3 and G3) we have assumed that where they have left a blank this is a deliberate 'no' response rather than a refusal or inability to supply an answer (eg if they have not given any information about a Masters degree, we have assumed that they have no Masters degree). The questionnaire is shown in Appendix B.

Table 7.1 shows the number of years of teaching of the teachers in our sample. As with previous years, the sample would seem to be highly experienced with well over half the teachers having taught for more than 10 years. On the other hand, there is again a sizeable minority (one fifth) who have taught for 5 years or less, although Table 7.2 suggests that many of these did not go directly into teaching. Indeed, our sample again seems to be quite old.

Y10 Number of Teachers	Years of Teaching								
	0-5	6-10	11-15	16-20	21-25	26-30	Over 30	blank	Total
Women	15	11	4	4	9	1		3	47
Men	6	13	4	4	10	8	8	2	55
Grand Total	21	24	8	8	19	9	8	5	102

Table 7.1 Years of Teaching Experience

Y10 Age of Teachers	Number of Teachers		Grand Total
	Women	Men	
Under 25	2	1	3
25-29	7	2	9
30-39	20	16	36
40-49	11	14	25
50-59	6	22	28
60 or more	0	0	0
blank	1		1
Grand Total	47	55	102

Table 7.2 Age of Teachers

Table 7.3 shows that the proportion of Women to Men who are Heads of Maths (8:14) is smaller than the overall proportion of Women to Men (47:55). This is different from previous years. Regarding the overall proportion of Women to Men (47:55), this is not as extreme as in Year 9 (37:48), nor as evenly balanced as in Year 8 (52:52).

Y10 School Responsibility	Number of Teachers		Grand Total
	Women	Men	
Head of Maths	8	14	22
Other	31	38	69
None (or blank)	8	3	11
Grand Total	47	55	102

Table 7.3 School Responsibility

('Other' includes: 2ic Maths Department, Deputy Headteacher, Head of KS4, Head of KS3, Head of Year, Examinations Officer, Numeracy Coordinator, ICT Coordinator, PGCE Mentor, Head of Careers)

Tables 7.4 and 7.5 show that 89 teachers (87 % of the sample) have a BEd or other first degree, with 66 (65 %) majoring in mathematics. A similar proportion had a degree in the Year 9 and Year 8 (86 % each time) and a similar proportion majored in maths in Year 9 (63 %), but a somewhat smaller proportion (51 %) in Year 8.

Y10 Degree (not BEd)	Number of Teachers		Grand Total
	Women	Men	
Maths degree	20	24	44
Other degree	7	10	17
None	20	21	41
Grand Total	47	55	102

Table 7.4 Teaching Qualification - Degree other than BEd

Y10 BEd	Number of Teachers		Grand Total
	Women	Men	
Maths	10	12	22
Other	5	1	6
No BEd	32	42	74
Grand Total	47	55	102

Table 7.5 Teaching Qualification - BEd

Tables 7.6 and 7.7 show that about two fifths of the Year 10 teachers have a PGCE (in most cases in mathematics) and about one fifth have a Cert Ed (again usually in mathematics). The proportion of PGCEs is roughly similar in Years 10, 9 and 8 (43 %, 48 % and 40 % respectively) whilst the proportion of Cert Eds is lower in Years 10 and 9 than in Year 8 (18 %, 21 % and 31 % respectively).

Y10 PGCE	Number of Teachers		Grand Total
	Women	Men	
Maths	17	24	41
Other	2		2
None	28	31	59
Grand Total	47	55	102

Table 7.6 Teaching Qualification - PGCE

Y10 Cert Ed	Number of Teachers		Grand Total
	Women	Men	
Maths	5	8	13
Other	1	4	5
No Cert Ed	41	43	84
Grand Total	47	55	102

Table 7.7 Teaching Qualification - Cert Ed

Eleven teachers have a Masters degree, of which 6 are in maths. None has a PhD (Tables 7.8, 7.9).

Y10 Masters	Number of Teachers		Grand Total
	Women	Men	
Maths	3	3	6
Other	2	3	5
No Masters Degree	42	49	91
Grand Total	47	55	102

Table 7.8 Higher Education - Masters

Y10 PhD	Number of Teachers		Grand Total
	Women	Men	
Maths	0	0	0
Other	0	0	0
No PhD	47	55	102
Grand Total	47	55	102

Table 7.9 Higher Education - PhD

Table 7.10 shows that two thirds of the teachers were involved in some CDP or INSET during the previous school year, though this usually consisted of no more than 5 sessions. The picture is similar to Year 9. (A slightly different question was asked in Year 8, so that the data are not directly comparable.)

Y10 Attendance at CPD or INSET in Mathematics Education during 2000 - 2001	Number of Teachers		Grand Total
	Women	Men	
0 Sessions (or blank)	12	20	32
1-5 Sessions	17	19	36
6-10 Sessions	14	13	27
Over 10 Sessions	4	3	7
Grand Total	47	55	102

Table 7.10 Attendance at CPD or INSET in Mathematics Education during the previous school year

Table 7.11 shows that 29 % of the teachers belong to one (or more) professional association, which is much the same as for Years 9 and 8 (30 % and 31 % respectively). Specifically, teachers were asked whether they belonged to the ATM, MA or IMA. This information is shown in Table 7.12. As in previous years, there are no members of the IMA. The proportions of ATM and MA members in Year 10 are 13 % and 7 % respectively (which includes 3 teachers who are member of both). These are similar, if generally slightly lower, than for Year 9 (17 % and 10 % respectively) and Year 8 (15 % and 6 % respectively).

Y10 Current Membership of Professional Association	Number of Teachers		Grand Total
	Women	Men	
Yes	8	22	30
No (or blank)	39	33	72
Grand Total	47	55	102

Table 7.11 Current Membership of any Professional Association

Y10 Current Membership of a Professional Association	Number of Teachers		Grand Total
	Women	Men	
ATM	3	7	10
MA	1	2	3
IMA			
ATM and MA	1	2	3
MA and Other		1	1
Other	3	10	13
None (or blank)	39	33	72
Grand Total	47	55	102

Table 7.12 Current Membership of Specific Professional Associations

Teachers were asked whether or not they were involved in extra-curricular mathematics activities during 2001 - 2002. The results are shown in Table 7.13. Fifty seven percent of the teachers are involved in extra-curricular mathematics activities of some kind, which is slightly down on Years 9 and 8 (60 % and 66 % respectively).

Y10 Extra-curricular Mathematics Activities?	Number of Teachers		Grand Total
	Women	Men	
Yes	28	30	58
No (or blank)	19	25	44
Grand Total	47	55	102

Table 7.13 Involvement in Extra-curricular Mathematics Activities during 2000 - 2001

Table 7.14 shows that two thirds (67 %) of teachers used at least one software package with students during 2001 - 2002. This is down on Year 9 but up on Year 8 (74 % and 64 % respectively), though the Year 8 data might be affected by the fact that the Year 8 question offered fewer explicit choices than in Years 9 and 10.

Y10: Software Used With Students	Number of Teachers		Grand Total
	Women	Men	
2 or more packages	18	29	47
1 package	14	7	21
None (or blank)	15	19	34
Grand Total	47	55	102

Table 7.14 Number of Software Packages Used With Students in Current School Year

Spreadsheets were by far the most popular kind of software and were used by about half the teachers, as in Years 9 and 8. This was followed by the graphics calculator, the internet, databases and LOGO (Table 7.15), which is the same order as in Year 9. Interestingly, just 6 teachers said they used a dynamic geometry package (compared to 4 and 5 in Years 9 and 8 respectively).

Y10: Specific Software Used With Students	Number of Teachers		Grand Total
	Women	Men	
LOGO	4	6	10
Dynamic Geometry	1	5	6
Spreadsheet	20	30	50
Database	3	11	14
Graphics Calculator	18	16	34
Integ' Learning System	0	1	1
SMILE	1	8	9
The Internet	11	21	32
Other	8	6	14
None (or blank)	15	19	34

Table 7.15 Specific Software Packages Used With Students in Current School Year

(note that some teachers used more than one package)

Teachers were asked to evaluate, in various ways, the choices presented to students in the multiple-choice questions A3 and G3 from the Proof Survey. Table 7.16 shows the responses to the question, 'Whose answer would your students say would get the best mark from you?'. As can be seen, the vast majority (72 %) predicted that students would choose answer A (correct structure, algebraic), which was also overwhelmingly (79 %) the answer that teachers selected as being closest to what they would have done (Table 7.17). Very few teachers opted for any of the other choices, including C which is a correct, narrative alternative to A.

Y10 Question A3: Best Mark	Number of Teachers		Grand Total
	Women	Men	
Answer A	31	42	73
Answer B	1		1
Answer C	2	3	5
Answer D	3	2	5
Answer E	4	3	7
Answer F			
Answer A and E	1		1
Blank	5	5	10
Grand Total	47	55	102

Table 7.16 Best Mark for Answers to A3

Y10 Question A3: Closest Answer to Teacher's	Number of Teachers		Grand Total
	Women	Men	
Answer A	36	44	80
Answer B	2		2
Answer C	2	2	4
Answer D	2	3	5
Answer E	2		2
Answer F			
Answer A, C and F		1	1
Blank	3	5	8
Grand Total	47	55	102

Table 7.17 A3 Answer Closest to Teacher's own approach

Teachers were asked to give each answer a mark out of 10. The resulting rankings for all six answers are shown in Table 7.18 (there were subtle but no major differences between the choices for women and men, so these are not shown separately). [Note that some of the upper rows sum to more than 102 and some of the lower rows to considerably less, because choices that are given the same mark by a teacher receive the same rank.] As might be expected from the above two tables, choice A was most commonly ranked top. Also not surprisingly, Choice C was most commonly ranked second. The 'scores' in the second to last row of Table 7.18 suggest that, for the sample of teachers as a whole, the choices can be ranked, from best to worst, as follows: A (correct structure, algebraic), C (correct structure, narrative), D (exhaustive strategy), F (correct structure, visual), B (empirical), E (incorrect structure, algebraic).

Y10 Question A3: Ranking of Answers A, B, C, D, E, F	Number of Teachers (Women and Men)					
	A	B	C	D	E	F
First	87	1	15	12	9	5
Second	4	3	52	19	4	6
Third	2	11	21	37	3	13
Fourth	1	37	4	18	15	25
Fifth	1	36	1	8	12	26
Sixth		6	2		50	19
Blank	7	8	7	8	9	8
Grand Total	102	102	102	102	102	102
Total SCORE*	555	254	450	385	205	285
Total SCORE rank	1st	5th	2nd	3rd	6th	4th

Table 7.18 A3 - Ranking of Answers A, B, C, D, E, F *(Total SCORE is calculated by assigning a score of 6, 5, 4, 3, 2, 1 to a rank of 1st, 2nd, 3rd, 4th, 5th, 6th respectively)

Table 7.19 shows the responses for Question G3 to the question, 'Whose answer would your students say would get the best mark from you?'. As can be seen, the majority (70 %) predicted that students would choose Answer C. This is a similar size majority as for question A3, though this time there is a slightly more sizeable minority (9 %) going for an alternative option (E). When asked about their own approach, Answer C is again the most common choice, though it is not quite as popular as before, and E is again the second most common choice, and this time it is chosen by a slightly larger minority (13 %).

Y10 Question G3: Best Mark	Number of Teachers		Grand Total
	Women	Men	
Answer A	2	4	6
Answer B	3		3
Answer C	33	38	71
Answer D			
Answer E	4	5	9
Answer F		1	1
Answer A and D	1		1
Blank	4	7	11
Grand Total	47	55	102

Table 7.19 Best Mark for Answers to G3

Y10 Question G3: Closest Answer to Teacher's	Number of Teachers		Grand Total
	Women	Men	
Answer A	6	3	9
Answer B			
Answer C	31	34	65
Answer D	2		2
Answer E	4	9	13
Answer F		1	1
Blank	4	8	12
Grand Total	47	55	102

Table 7.20 G3 Answer Closest to Teacher's own approach

The teachers' rankings for all five answers are shown in Table 7.21 (again, there were no substantial differences between the choices for women and men, so these are not shown separately). Not surprisingly, Answer C receives the top rank most often, followed at some distance by E. The

'scores' in the second to last row of the table suggest that, for the sample of teachers as a whole, the choices can be ranked, from best to worst, as follows: C (correct structure, algebraic), E (correct structure, narrative), F (correct structure, visual), A (enactive, empirical), B (circular, algebraic), D (empirical).

Y10 Question G3: Ranking of Answers A, B, C, D, E, F	Number of Teachers (Women and Men)					
	A	B	C	D	E	F
First	5	5	88	1	32	10
Second	14	6	3	1	43	17
Third	25	9	4	10	6	37
Fourth	37	14		23	7	14
Fifth	13	26		29	5	8
Sixth	1	35		31	1	9
Blank	7	7	7	7	8	7
Grand Total	102	102	102	102	102	102
Total SCORE*	338	225	559	178	463	360
Total SCORE rank	4th	5th	1st	6th	2nd	3rd

Table 7.21 G3 - Ranking of Answers A, B, C, D, E, F *(Total SCORE is calculated by assigning a score of 6, 5, 4, 3, 2, 1 to a rank of 1st, 2nd, 3rd, 4th, 5th, 6th respectively)

8 SCHOOL SURVEY

The schools in the survey were within 10 LEAs in 9 geographical regions across England. When the schools were chosen in Year 8, care was taken to ensure that the LEAs were such as to include rural, semi-rural and urban schools. Within each LEA, schools were selected from randomly ordered lists of maintained secondary schools, stratified for age-range. To avoid choosing very small schools, most of whose students would be likely to have difficulty with the Proof Survey questions, we only considered schools with over 120 fifteen year olds (according to the DfES website). In all, 63 schools participated in the Year 8 survey but 4 schools dropped out in Year 9, and another 5 in Year 10, leaving 54 schools who participated in the Year 10 survey. The tables below show data taken from the DfES website or from the Y10 School Questionnaire that was completed for us by a teacher in each school, usually the head of mathematics. The questionnaire is shown in Appendix C.

Table 8.1 show that most of our schools are community schools. Just over half are 11 - 18 schools and just under half are 11 - 16 schools (with one 12 - 18 and one 12 - 16 school). According to the DfES website, 21 of the schools are specialist schools (Table 8.2), compared to 14 in Year 9 and 10 in Year 8.

Y10 Type of School	Number of schools		Grand Total
	11 -16	11 -18	
City Technology College		1	1
Community School	18	23	41
Foundation School	4	1	5
Voluntary Aided School	2	3	5
Voluntary Controlled School	1	1	2
Grand Total	25	29	54

Table 8.1 Type of school (Type A in DfES Classification)

(The sample contains one 12 - 16 school and one 12 - 18 school. The other 54 schools start at age 11)

Y10 Special Designation	Number of schools		Grand Total
	11 -16	11 -18	
Designated as a Language College under the Specialist School Programme	1	2	3
Designated as a Sports College under the Specialist School Programme	1	3	4
Designated as a Technology College under the Specialist School Programme	3	7	10
Designated as an Arts College under the Specialist School Programme		1	1
Designated as a Business and enterprise College under the Specialist School Program	1		1
Designated as a Maths and computing College under the Specialist School Programme	1	1	2
Blank	18	15	33
Grand Total	25	29	54

Table 8.2 Special Designation Schools showing Age Range of Students

(None of our schools was designated as an Engineering College or Science College)

According to the DfES, one of the 54 schools is classed as selective and all the others are comprehensive, although one of the comprehensive schools (2) claims to have some academic selection, as is shown in Table 8.3 (in Year 9 two of the comprehensives [3 and 13] claimed to have full academic selection, while in Year 8 one comprehensive claimed to have some academic selection).

Count of Y10 Selection	Number of Schools		Grand Total
	11 - 16	11 - 18	
No academic selection	24	28	52
Some academic selection	1		1
Full academic selection		1	1
Grand Total	25	29	54

Table 8.3 Selection

Table 8.4 shows that 4 of the schools are girls' schools (which includes the selective school). All the other 50 schools are mixed.

Count of Y10 Single-Sex/mixed	Number of Schools		Grand Total
	11-16	11-18	
Girls-only	2	2	4
Boys-only			
Mixed-sex	23	27	50
Grand Total	25	29	54

Table 8.4 Single-sex/mixed

Table 8.5 shows the numbers of schools for various percentage ranges of Year 11 students gaining at least five A* to C grades at GCSE in 2001. The National average is about 50 %, while the median and mean for our sample of schools is 57 % and 56 % respectively (compared to 53 % for the median and the mean for these same 54 schools in 2000, and in 1999).

Y10 Count of 2001 % A* - C		Number of Schools									Grand Total
		<10	10-<20	20-<30	30-<40	40-<50	50-<60	60-<70	70-<80	80-100	
School Age Range	11 -16			2	5	2	7	6	3		25
	11 -18			1	2	6	11	2	3	4	29
Total				3	7	8	18	8	6	4	54

Table 8.5 Percentage of Students who gained five or more GCSEs at Grades A* to C in 2001

In line with the previous project, schools were asked whether they regarded themselves as urban, rural or suburban. As can be seen from Table 8.6, the three types are fairly evenly represented, though the proportion of schools classing themselves as urban has gone down from 36 % in Year 9 to 26 % in Year 10. This is only partly accounted for by the fact that three of the five schools that dropped out in Year 10 were urban.

Y10 Area	Number of Schools		Grand Total
	11 -16	11 -18	
Urban	8	6	14
Rural	9	12	21
Suburban	8	11	19
Grand Total	25	29	54

Table 8.6 Type of School by Area

Schools were asked for the approximate number of students in Year 10. As can be seen from Table 8.7, the most common range was 200 - 250 students, though the median school is in the 150 - 200 range.

Number of Y10 Students		Number of Schools						
		>100-150	>150-200	>200 - 250	>250 - 300	>300 - 360	Blank	Grand Total
School Age Range	11 -16	5	8	8	1		3	25
	11 -18	6	5	6	2	3	7	29
Grand Total		11	13	14	3	3	10	54

Table 8.7 Distribution of total number of Y10 students across schools

The School Questionnaire asked whether the Y10 mathematics classes were set, banded, or organised in mixed ability groups. Nearly all the schools set their classes, which was also the case in Year 9. (In Year 8, 39 of the 54 schools set their classes, 9 used banding, 3 used mixed ability grouping and 2 used a mixture of setting and banding.)

Organisation of Y10 Classes	Number of Schools		Grand Total
	11 -16	11 -18	
Set	23	27	50
Banded	1		1
Mixed Ability			
Set & Banded	1		1
Blank		2	2
Grand Total	25	29	54

Table 8.8 Organisation of Current Y10 Classes

The School Questionnaire asked for an estimate of the percentage of students in the Year 10 proof students' class who would be entered for the GCSE Higher tier examination. The results are shown in Table 8.9, where it can be seen that in the majority of schools, at least 90 % of the students in the proof students' classes are likely to be entered for the Higher tier.

% participating in Y10 survey who will be entered for Higher tier GCSE		Number of Schools								Grand Total
		40-<50	50-<60	60	70-<80	80-<90	90-<100	100	Other or blank	
School Age Range	11 -16	1	2		2	2	6	10	2	25
	11 -18		2	1	2	1	6	12	5	29
Grand Total		1	4	1	4	3	12	22	7	54

Table 8.9 Percentage of participating Y10 Students who will be entered for Higher tier GCSE

Table 8.10 shows which GCSE examination syllabus the school is currently using. The use of OCR is still relatively low, though it has recovered slightly from the low of 8 schools in the Year 9 survey.

Y9 GCSE Examination Syllabus	Number of Schools		Grand Total
	11 -16	11 -18	
AQA	10	8	18
EdExcel	10	12	22
OCR	5	7	12
Blank		2	2
Grand Total	25	29	54

Table 8.10 GCSE Examination Syllabus currently used in the school

Table 8.11 shows the scheme or textbook used in the schools in Year 10. Of the schools that gave a non-blank response, 12 % state that they use Key Maths, which is massively down on the proportions for Years 9 and 8 (55 % and 49 % respectively). This is perhaps explained by the move to using bespoke textbooks produced by the examination boards for students in Years 10 and 11.

Textbook Used in Year 10	Number of Schools		Grand Total
	11 -16	11 -18	
Key Maths	4	2	6
SMP	2	4	6
STP			
Vickers	2		2
Other*	16	20	36
Blank	1	3	4
Grand Total	25	29	54

Table 8.11 Textbook used in Year 10

(*Other includes Rayner(9), Heinemann(8), AQA(5), Oxford(3) and OCR(3))

Table 8.12 shows that the schools most commonly have 180 minutes of mathematics lessons per week, which is also the median time. 180 minutes was also the mode and median in Years 8 and 9.

Y10		Number of Schools											Grand Total
Number of minutes of maths lessons per week		140	150	160	165	170	175	180	190	200	210	blank	
School	11 -16	1			1		2	11		6	3	1	25
Age Range	11 -18		4	1			3	15		2	2	2	29
Grand Total		1	4	1	1		5	26		8	5	3	54

Table 8.12 Total Duration (in minutes) of Y10 mathematics lessons per week

Table 8.13 suggests that in about two thirds of the schools at least some Year 10 students were involved in extra-curricular mathematics activities, be this in school or elsewhere. This is similar to the proportion in Year 8 but less than in Year 9, where the proportion was about four fifths. As before, these activities seemed overwhelmingly to involve the UK Maths Challenge.

Are any Y10 students involved in extra-curricular activities?	Number of Schools		Grand Total
	11 -16	11 -18	
Yes	16	19	35
No (or blank)	9	10	19
Grand Total	25	29	54

Table 8.13 Y10 Students engaged in extra-curricular activities

Table 8.14 shows that at least a quarter of the schools are currently involved in some way or other with the CAME project. We did not ask about this in the earlier school questionnaires.

Is the department currently involved with the CAME project?	Number of Schools		Grand Total
	11 -16	11 -18	
Yes	5	9	14
No (or blank)	20	20	40
Grand Total	25	29	54

Table 8.14 Y10 The department's involvement with CAME

In the Autumn term 2002, the following supplementary question was sent to the head of mathematics in each school, to gather information about the 'stability' of the mathematics department.

Think of all the people (including yourself) who currently teach some mathematics classes in the school (it does not matter whether they teach maths full time or part time).

Think of roughly how many years they have taught maths in THIS school.

Put a tally mark in the appropriate box for each person.

Years of maths teaching in THIS school	0 - 5 years	6 - 10 years	11 - 20 years	20+ years
Tally				

The data were used in the multilevel analysis, and it was decided to do this by categorising schools in terms of whether the proportion of teachers with 5 years or less experience in the current school was less than 25 %, between 25 % and 60 %, or more than 60 %. The distribution of schools according to these criterion is shown in Table 8.15, below.

Number of Y10 Schools		Proportion of teachers with 0 - 5 years experience at the school			
		< 25 %	25 % - 60 %	> 60 %	Grand Total
School Age Range	11 -16	1	17	7	25
	11 -18	4	17	8	29
Grand Total		5	34	15	54

Table 8.15 Distribution of schools wrt the proportion of teachers with 0 - 5 years experience at the school

The DfES kindly provided us with information for the proof schools about the proportion of students eligible for Free School Meals. This proved to be a significant variable in the multilevel analysis, and the information is summarised in Table 8.16, below.

Number of Y10 Schools		Proportion of students eligible for Free School Meals			
		<10 %	10 % - <20 %	20 % - <30 %	Grand Total
School Age Range	11 -16	13	8	4	25
	11 -18	18	7	4	29
Grand Total		31	15	8	54

Table 8.16 Distribution of schools wrt the proportion of students eligible for Free School Meals

Reference

Healy, L. and Hoyles, C.: 1999, *Justifying and Proving in School Mathematics: Technical Report of the Nationwide Survey*. Institute of Education, University of London

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