

Table 1: The effect of demographic, prior achievement and class organization characteristics on the attainment at QCA3 tests in reading and mental arithmetic

Predictor	Scale - Coding	QCA3 Reading score (scale 0-36 points Mean=8.19, SD=7.98)		QCA3 Mental arithmetic score (scale:0-15 points Mean=8.19, SD=3.57)		
		Mean	SE	Mean	SE	
Fixed Part of the model						
Demographics						
Age at baseline	Standardized (i.e. mean=0, sd=1)	0.31	0.14	** -0.08	0.07	
Special Education Needs Provision (PLASC 2005)	0 No special provision; 1 School Provision + statemented)	-2.95	1.83	-1.72	1.01 *	
English as second language	0:No; 1=Yes	-2.39	0.90	** 0.53	0.43	
No of half-day sessions absent	log-transformed	0.11	0.13	0.04	0.07	
Gender	0: female; 1: Male	-0.33	0.27	0.96	0.13 ***	
Prior attainment						
KS1 Level 2C	Reference category KS1 Level W/1	-0.04	2.42	0.92	1.51	
KS1 Level 2B		2.86	2.38	2.90	1.52 *	
KS1 Level 2A		6.60	2.28	** 2.41	1.51	
KS1 Level 3		10.77	2.32	*** 4.27	1.53 ***	
Type of maths test taken	Type 2A:Reference ; Type 2B; Both Both.qca3r	1.56	0.34	*** 1.83	0.19 ***	
Baseline score (Hampshire standard)	Standardized (i.e. mean=0, sd=1)	0.55	0.79	-0.45	0.51	
Interaction Baseline score with KS1 attainment Level 2C		1.56	1.02	1.19	0.58 **	
Interaction Baseline score with KS1 attainment Level 2B		0.31	0.90	1.24	0.54 **	
Interaction Baseline score with KS1 attainment Level 2A		0.54	0.84	1.12	0.53 **	
Interaction Baseline score with KS1 attainment Level 3		-0.10	0.81	1.25	0.53 **	
Vertical Groupings (VG: measured at individual level)						
Taught in mixed class only during year 3	Reference category is a non age-mixed class at both years	0.90	0.53	* 0.87	0.36 **	
Taught in mixed class only during year 2		0.87	0.69	1.33	0.41 ***	
Taught in mixed class only during both year 2 and year 3		-1.95	0.51	*** 0.43	0.32	

*: statistical significance level 5%; **: statistical significance level 2.5%; ***: statistical significance level less than 1%

Table 2: The effect of parental background and mobility factors on the attainment at QCA3 tests in reading and mental arithmetic

Predictor Parental background	Scale - Coding	QCA3 Reading score (scale 0-36 points)		QCA3 Mental arithmetic score (scale:0-15 points)		
		Mean	SE	Mean	SE	
Renting their home	0:No; 1=Yes (among those not in receipt of working tax credit)	-2.49	1.30	*	0.10	0.63
Social class (SES based on occupational classification)	1: High; 2:Middle; 3:Low: 4:Not working (among those who are not renting)	-1.55	0.80	*	-0.50	0.57
Level of education	1: second. <16; 3 second. 16-19; 3: Further/Vocational; 6: University graduates+postgraduate	0.30	0.09	***	0.21	0.11 *
Single parent	0:No; 1=Yes	-0.31	0.38	-0.16	0.19	
Family size	1: 1 child;2: 2 children; 3: 3children; 4: more than 4 children	-0.55	0.15	***	0.03	0.07
Interaction of Renting by Receipt of Working Tax credit	Effect of renting one's home among those in receipt of working tax credit	1.38	0.65	**	0.11	0.32
Interaction of Renting with SES	SES effect (modification) among those who are renting	0.79	0.43	*	-0.01	0.21
Interaction of SEN with SES	SES effect (modification) among those with SEN	0.63	0.56	0.17	0.25	
Interaction of SEN with education	Parental education effect (modification) among those with SEN	-0.37	0.27	0.01	0.30	
Interaction: SES * (difference) Level w/1 - Level 2C	SES effect (modification) according to KS1 attainment	1.47	0.86	*	0.42	0.57
Interaction: SES * (difference) Level w/1 - Level 2B		0.94	0.83	0.15	0.58	
Interaction: SES * (difference) Level w/1- Level 2A		1.60	0.80	**	0.37	0.58
Interaction: SES * (difference) Level w/1 - Level 3		1.21	0.81	-0.16	0.19	
Mobility indicators (at individual level)						
School changes	New-pupil to a school (i.e. changed schools at a different postcode) 0: No change; 1: School Change	-0.11	0.13	-0.03	0.06	
Home changes	Changed home 0: never; 1: once; 2: twice; 5: more than 5 times.	0.71	0.69	-0.34	0.33	

*: statistical significance level 5%; **: statistical significance level 2.5%; ***: statistical significance level less than 1%

||: the coding for the parental level of education for mathematics is different as follows:

1: second. <16; 2 second. 16-19; 2: Further/Vocational.; 3: University graduates+postgraduate

Table 3: The effect of class and school composition on the attainment at QCA3 tests in reading and mental arithmetic

Predictor Compositional effects	Scale - Coding	QCA3 Reading score (scale 0-36 points)		QCA3 Mental arithmetic score (scale:0-15 points)		Mean	SE
		Mean	SE	Mean	SE		
Registration rates	3-year Average of (Number of pupils on Roll) Over (School Capacity) scale 0.6 - 1.3 modal value 0.9	4.56	1.74	**	2.00	1.14	*
% of new-pupils	Proportion of new pupils (% pupil changing schools at a different postcode i.e. aligned Infant-Junior schools)	-1.33	0.96	0.84	0.60		
SES class differentials	Number of students with low SES over Number of students with high SES 25% centile=1.2 mode:=2.5 75% centile=6.2	-0.08	0.02	***	0.002	0.02	
Class baseline average	Class average baseline score normalized (normal equivalent deviate)	0.57	0.27	***	-0.40	0.18	**
KS1 attainment differentials	KS1 attainment class Differentials (Proportion Level w/1) Over (Proportion Level 3); scale [-2 2]	0.44	0.24	*	0.37	0.17	**
Interaction of Type of Maths-test administered and KS1 attainment class differentials	KS1 attainment class differentials for those pupils who took the more difficult test 2B	0.27	0.33	-0.44	0.15		**

*: statistical significance level 5%; **: statistical significance level 2.5%; ***: statistical significance level less than 1%

Table 4 Estimates of the between school variation in attainment and progress to QCA3 tests as well as residual (unexplained) variance and correlations

	Mean (SE) Correlation (cor.)	Mean (SE) Correlation (cor.)	Mean (SE) Correlation (cor.)	Mean (SE) Correlation (cor.)
Random parameter	Mean SE			
Between school variation for random effects	Reading Prior attainment Constant term	Mental Arithmetic Prior attainment Constant term	Reading Prior attainment Slope term	Mental Arithmetic Prior attainment Slope term
Reading Prior (**): attainment Constant term	2.12 (**) (0.76) cor.=1.0			
Mental Arithmetic Prior attainment Constant term	0.13 (0.38) cor.=0.002	1.39 (0.38) cor.=1.0		
Reading Prior attainment Slope term	-2.16 (***) (0.84) cor.=-0.82	-1.10 (**) (0.50) cor.=-0.57	2.54 (**) (1.10) cor.=1.0	
Mental arithmetic Prior attainment Slope term	0.01 (0.32) cor.=-0.02	-0.94 (***) (0.30) cor.=-0.94	0.69 (*) (0.41) cor.=-0.71	0.59 (0.26) cor.=1.0
Between pupil variation				
Attainment in reading variance	17.23 (***) (0.75) cor.=1.0			
Covariance between attained reading and Mental arithmetic	1.45 (***) (0.26) cor.=0.17			
Attainment in mental arithmetic variance	4.11 (***) (0.18) cor.=1.0			

(**): representing between school variation according to prior attainment (KS1) gap between mean Levels (2C-2A) and below level 1

(***): representing between school variation according to prior attainment (KS1) gap between mean Levels 3 and below level 1

*: statistical significance level 5%; **: statistical significance level 2.5%; ***: statistical significance level less than 1%

Table 5: Mean differences (in standard deviations) Relative to children from non-working families (FSM recipients) in baseline literacy scores according social class.

SES (occupational class)	Literacy (standard deviation units)			Numeracy (standard deviation units)		
	Mean (SD)	95%	Mean (SD)	95%	Confidence Interval	
		Confidence Interval			Interval	
High	1.06 (0.11)	[0.84 1.27]	1.06 (0.11)		[0.85 1.28]	
Middle	0.78 (0.09)	[0.59 0.97]	0.81 (0.09)		[0.62 0.99]	
Working Class & not in paid work	0.40 (0.09)	[0.21 0.59]	0.45 (0.09)		[0.27 0.64]	

| **Table 6: Number of families renting their home and receiving working tax credit according to SES**

SES (occupational class)	Not Renting		Renting		Total	
	Not in Receipt of Working tax credit	In Receipt of Working tax credit	Not in Receipt of Working tax credit	In Receipt of Working tax credit	Not in Receipt of Working tax credit	In Receipt of Working tax credit
High	187	43	11	6	198	49
Middle	403	107	50	27	453	134
Working class	265	154	87	114	352	268
Non-working	23	1	97	10	120	11