Education/Libraries/Arts Overview and Scrutiny Committee
Wednesday 9 February 2005

Theme: Teaching and Learning of Mathematics in Hillingdon Schools

Review Two Years On

Aim:

To review progress made on the recommendations in the report of 20 February 2003 and provide an up-date on the present standards of mathematics achieved by young people emerging from Hillingdon schools.

Method:

- scrutinise relevant data and resulting information presented by the School Improvement Service.

Main findings:

The provision of mathematics education for pupils aged 3 to 11 in Hillingdon continues to have significant strengths and to be recognised as such by both school OfSTED reports and data analysis comparing Hillingdon with its statistical neighbours and with national standards.

The quality of provision provided by 14 and by 18 is shown to have improved in terms of achievement and standards but at 16 there is little evidence of progress.

Staff supply for mathematics education in the secondary phase has been helped by the employment of 'Teach First' trainee teachers in schools in challenging circumstances. This has brought in people who sometimes are choosing teaching as a second career but there has been little progress in bringing recently retired professionals from outside education. There remains a problem with the recruitment of heads of department in all secondary schools. Posts are re-advertised two or three times or more before appointments are made.

Over the past two years the central support team for secondary mathematics has changed completely with the promotion of the school improvement adviser with responsibility for mathematics to a senior adviser post in November 2003 and the departure of the Key Stage 3 consultant for mathematics in January 2004. Permanent replacements took up post in June 2004 and November 2004 respectively. Transition between the primary and secondary phases with regard to mathematics is now a high priority for 2005 and beyond to minimise learning loss at transition.

As part of the strategy to improve opportunities for applying teaching and learning of mathematics in vocational and other real-life contexts the authority has taken up the opportunity to join the London-based national centre for mathematics education at the University of London Institute of Education and to work with the chief adviser for

mathematics nationally, from her appointment in 2005, following implementation of recommendations of the Smith Report.

Report:

Key Stage 1 performance Level 2b+

	2002	2003	2004
LEA	80%	73%	76%
National	76%	74%	75%

Key Stage 1 performance Level 3+

	2002	2003	2004
LEA	36%	31%	31%
National	31%	29%	28%
Statistical neighbours	32%	28%	

Standards in mathematics improved in value added terms at Key Stage 1 in 2004 and are still above the national average, particularly in terms of the percentage of pupils achieving level 3. In mathematics, unusually, test results exceed teacher assessments by about 3%.

Key Stage 2 performance Level 4+

	2002	2003	2004
LEA	78%	75%	77%
National	73%	73%	74%
Statistical neighbours	74%	72%	74%

Key Stage 2 performance Level 5+

	2002	2003	2004
LEA	31%	32%	36%
National	28%	29%	31%
Statistical neighbours	29%	29%	32%

The percentage achieving level 4 or higher in mathematics improved from last year's blip. However, EDP target of 81% was missed, as was the national target of 80%. Attainment at level 5 fell markedly in English and improved in mathematics.

Girls' results in mathematics gave cause for concern in 2003. In 2004, this improved, with boys' results remaining largely unchanged. Boys are still slightly more likely to achieve level 5 in mathematics compared to girls, but equal proportions achieved level or higher. This reflects the national pattern.

Key stage 2 2004: Actual and projected attainment at level 4+ and level 5

		Maths	
		Actual	Projected
Level 4+	All	77	77
	Boys	77	78
	Girls	77	76

Level 5+	All	36	33
	Boys	38	37
	Girls	33	28

Key Stage 3 performance Level 5+

	2002	2003	2004
LEA	64%	72%	73%
National	67%	70%	73%
Statistical neighbours	70%	72%	

Key Stage 3 performance Level 6+

	2002	2003	2004
LEA	42%	46%	50%
National	45%	49%	52%
Statistical neighbours	48%	51%	

Attainment at level 5 improved marginally in mathematics following significant improvement in 2003. Attainment at level 6 improved in mathematics, reflecting national trends. The gap between the local average and the national average in terms of level 6 attainment continues to narrow. PANDA grade C indicates that Hillingdon ranked in the middle 20% of all LEAs nationally in 2004 for level 6 attainment in mathematics, having achieved grade D (lower 40% of LEAs nationally) in 2003.

In order to address the weak value added ratings achieved by Hillingdon in recent years, further improvement at level 6 and level 7 is required. The percentage of pupils achieving level 7 in mathematics fell in Hillingdon despite the national average rising from 20% to 23%.

Key stage 3 average point scores 2002-2004 with 2005 end of PSA target

	2002	2003	2004	2005 target
KS3 Maths - average point score	33.7	35.0	35.5	35.9

Hillingdon remains on course to achieve the PSA target of 35.9 points in mathematics by the end of 2004/05.

GCSE performance A*-C

	2002	2003	2004
LEA			
National		48%	50%

GCSE performance A*-A

	2002	2003	2004
LEA			
National		10.2%	10.5%

GCSE results in mathematics were relatively strong in Hillingdon in 2004, regardless of EAL.

GCE performance average points per entry

	2002	2003	2004
LEA (entrants in brackets)			92 (127)
National		89	89 (25,680)

For 2004 the performance in mathematics GCE would represent a 'B' grade, putting Hillingdon's performance in the top 40% nationally.