Case Study – Dyscalculia

SUMMER & AUTUMN TERMS 201 – Pilot Project Extract of the report



Independent Case Study – Participating 3 Primary Schools, London

Introduction:

A pilot project was completed in the London Borough of Hounslow to assess the impact of Dynamo Maths on pupil attainment and outcomes. 3 primary schools were included and 2 pupils were selected from each school per term. Pupils were selected on the basis of their low attainment in mathematics and having been reported by the schools as exhibiting possible dyscalculia characteristics with co-occurring difficulties such as memory, retention and auditory processing.

A pre- and post-intervention assessment of each pupil was conducted by the Learning Advisory Teacher attached to the schools. Additional school data was included to inform pupil outcomes. A questionnaire and interview were conducted by the Learning Advisory Teacher with the member of staff using the Dynamo Maths in each school. Pupil comments were also recorded.

Assessment and data collection were based on the following:

- 1. Dyscalculia Screener (Butterworth, 2003) at the start of the intervention
- 2. National Curriculum levels (school data)
- 3. Auditory Sequential Memory (including Working Memory) (Turner Ridsdale, 2004)
- 4. Self-evaluation scaling by pupil

This report includes a comparison of the data collected according to these different assessment tools. The Dyscalculia Screener assessed pupils according to specific categories of mathematical ability. The test was not repeated but any difficulties and concerns identified were assessed at the end of the intervention and progress recorded.

N.B. For the purpose of this project, it was not possible to include the data for one of the schools in the first term (emergency staffing). A pupil from one of the other schools continued into the second term. One child also left before the final assessment could be conducted but was present for the intervention. These changes are shown in the presentation of the data.

A report was written after the summer term. This report is a combination of both terms.



Measuring Outcomes:

Pupil progress: All pupils

- o N.C. LEVELS including 'Expected/Accelerated Progress' measured by gains in sub-levels
- o Auditory sequential memory (A.S.M.) expressed as standardised score
- o Self-evaluation

Target Pupil	Year Group	Age Start Years	Number of Sessions	N.C. Level	N.C. Level	Progress in N.C. Level		A.S.M. (S.S.)		Self-evaluation (score between 0-10)	
						No. of sub- Levels Gain	E./A.				
				(Pre-)	(Post-)			(Pre-)	(Post-)	(Pre-)	(Post-)
	5	10.07	10 - 15	2A	2A	0	N/A	93	87	' 5'	'7'
A	6	10.11	15 - 20	2A	3C	+1	Α	87	99	'7'	'7'
В	6	11.02	10 - 15	1A	2B	+2	Α	85	85	'4'	'7'
С	4	9.04	15 - 20	2A	3C	+1	А	91	116	'10'	'10'
D	5	10.04	15 - 20	2A	3C	+1	А	74	88	'7'	'9'
E	5	9.09	15 - 20	2B	2A	+1	Α	79	90	'9'	'9'
F	4	8.09y rs	10	2C	2B	+1	А	127	116	'5'	' 5'
G	3	7.11y rs	>10	1C	1A	+2	А	75	75	'5'	'10'
Н	6	10yrs	20+	2B	3C	+2	А	85	98	'5'	'6'
I	6	10.08 yrs	20+	3B	N/A	N/A	N/A	73	N/A (left)	'9'	N/A (left)



Index: Progress in N.C. Levels

E= Expected rate of progress ('1/2 sub-level' in one term)

A= Accelerated rate of progress ('1/2+ sub-level' in one term

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