



Utilising value-added progress data in the context of Every Child Matters

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Presented at ICSEI 2008
Wednesday 9th January 10.50am
Auckland, New Zealand



Dorset LA/Uni of Southampton KTP

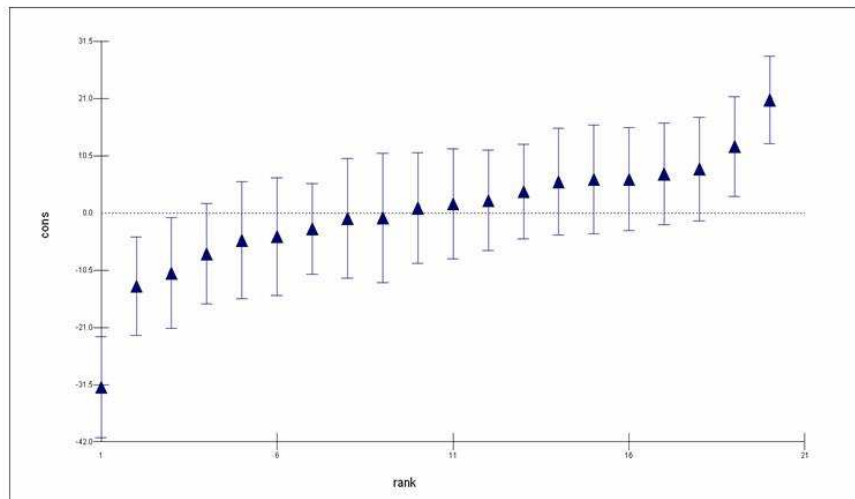
- The LA's data demonstrated improvements in both standards and progress
 - comparison with statistical neighbour LAs
 - the masking effects of threshold measures
 - the smoothing effect of school performance indicators
- Awareness that these gains were not shared equally across the student spectrum in all schools
 - across the range of prior attainment
 - students receiving fixed-term exclusions (FTEs)
 - variable progress of students on SEN CoP
- Desire to approach data through an ECM lens

Every Child Matters

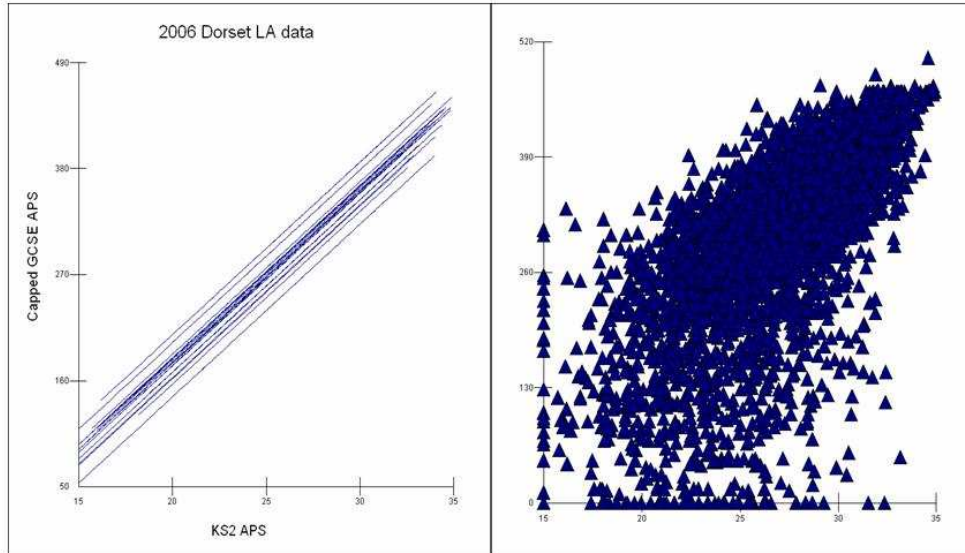
- "there can be no school standards without Every Child Matters – and no Every Child Matters without school standards"

Jeffrey & Tabberer, October 2006
Directors General of the DCSF

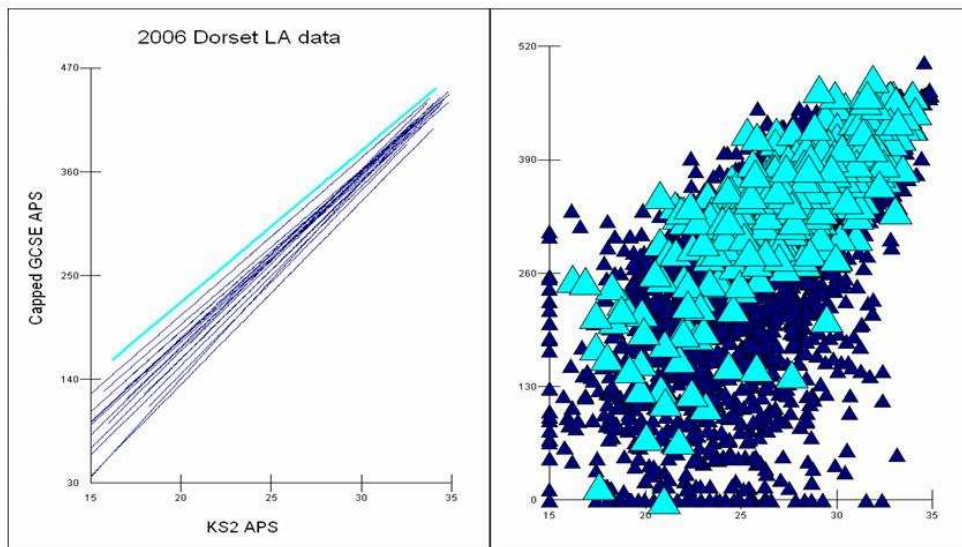
KS2-4 VA data analyses



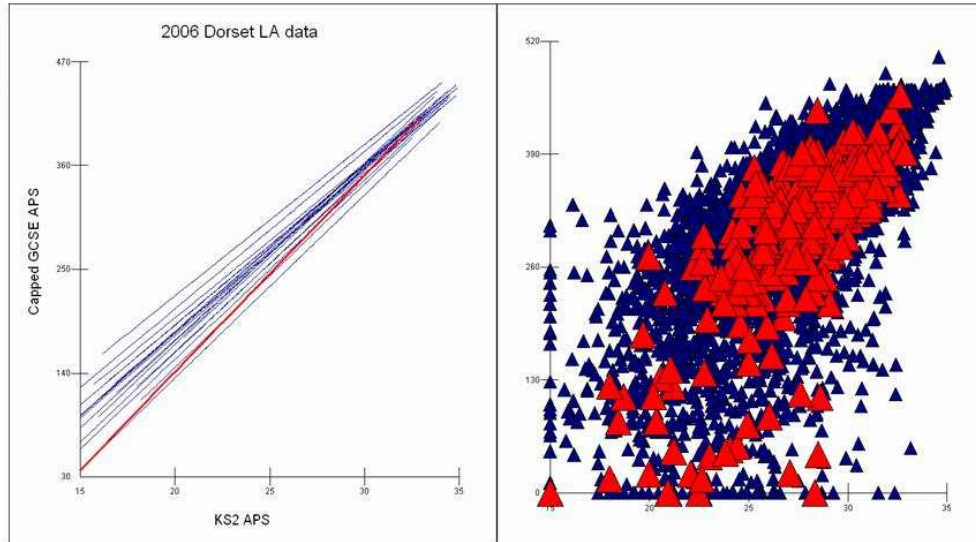
KS2-4 VA data analyses



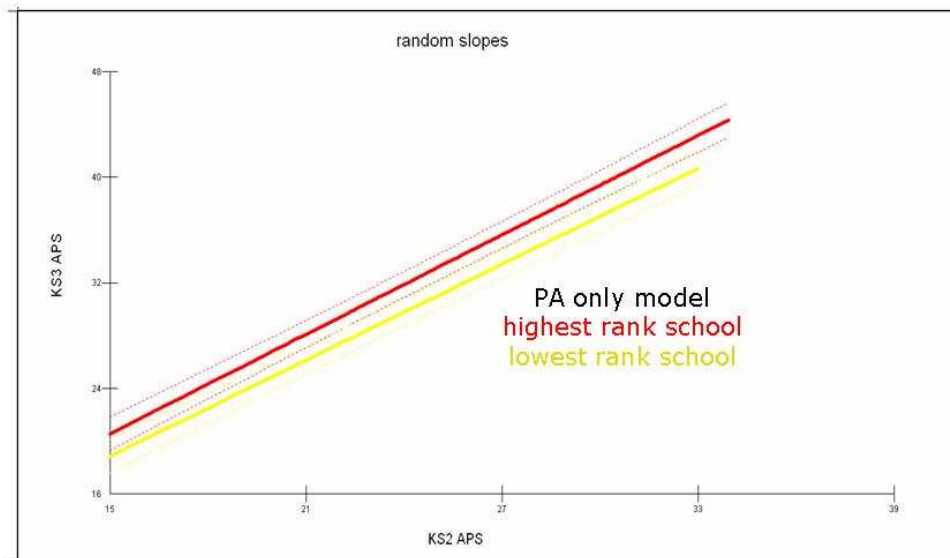
KS2-4 VA data analyses



KS2-4 VA data analyses

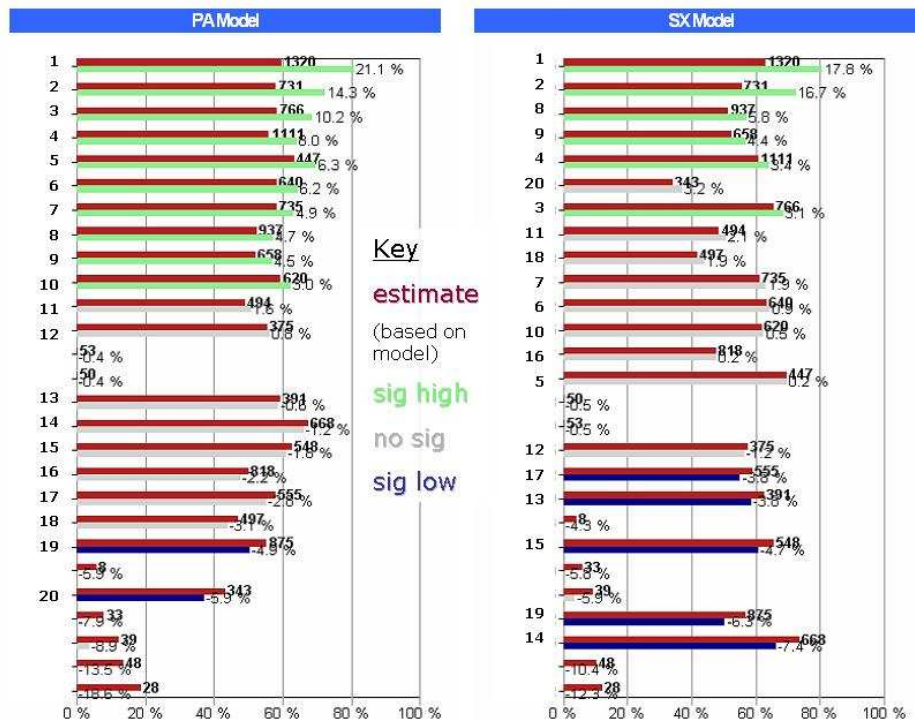


KS2-3 VA data analyses



Key Stage : 2 -> 4

Indicator : %5+ A*-C Passes



Source: FFT (2006) annotations added



The difference context makes

School A

Subject	Year	Pupils		Lev 5+	Lev 6+	NC Lev		Lev 5+	Lev 6+	NC Lev	Number Boys			Number Girls		
		Total	Match								L	M	U	L	M	U
Mathematics	2005/06	164	164	91%	78%	6.4	PA	17	10	54	16	25	34	20	29	40
							SX	44	41	96	16	25	34	20	29	40

"There seems little point in trying to interpret any of the other data at KS3 from this report if it is flawed in some way...

it is just that intuitively it doesn't seem to make sense that 44% of schools achieved a high(sic) pass rate than 91 with the same profile cohort or that 96% of schools achieved a higher average pass rate than 6.4."

Data Source: FFT (2006)

The difference context makes

School B																
Subject	Year	Pupils		Lev	Lev	NC		Lev	Lev	NC	Number Boys Number Girls					
		Total	Match	5+	6+	Lev		5+	6+	Lev	L	M	U	L	M	U
Mathematics	2005/06	153	148	80%	56%	6.0	PA	44	54	49	29	26	22	21	31	19
							SX	18	25	22	29	26	22	21	31	19
School A																
Subject	Year	Pupils		Lev	Lev	NC		Lev	Lev	NC	Number Boys Number Girls					
		Total	Match	5+	6+	Lev		5+	6+	Lev	L	M	U	L	M	U
Mathematics	2005/06	164	164	91%	78%	6.4	PA	17	10	54	16	25	34	20	29	40
							SX	44	41	96	16	25	34	20	29	40

"The important info on that page is that the more able pupils who are a large proportion of the cohort significantly underachieved."

"I would ask you to reflect on your last sentence that 'more able pupils underachieved'...we need to remember we're making judgements about pupils and not numbers"

Data source: FFT (2006)

Combining VA scores with fixed-term exclusion data

Can VA progress scores help to identify
students at risk of fixed-term exclusion?

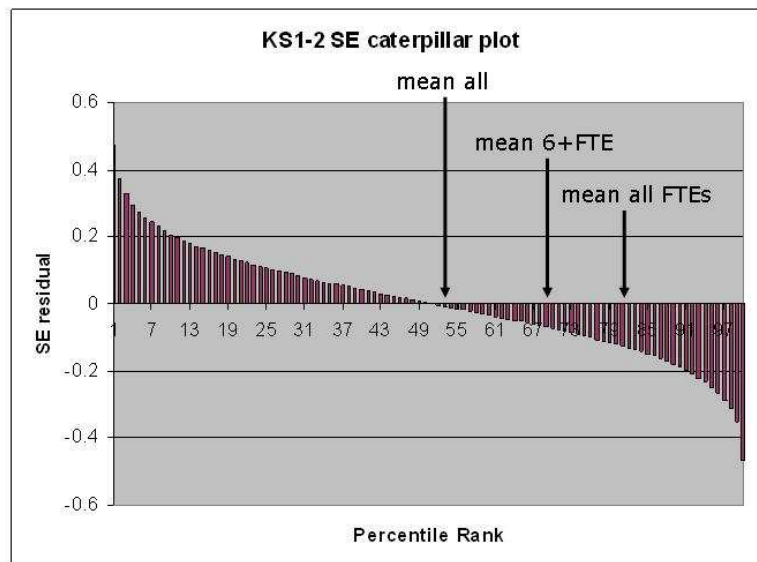
Identifying students at risk of exclusion

- Descriptive analysis of 03-06 FTE data
 - gender, SEN status, home postcode and reason for exclusion
- No predictive potential in Primary phase FTE
- 05-06 FTE + FFT data: potential of progress as a predictor
 - Hypothesis: FTEs result from clash with school culture, manifests early in lower than expected progress (allows for range of ability)

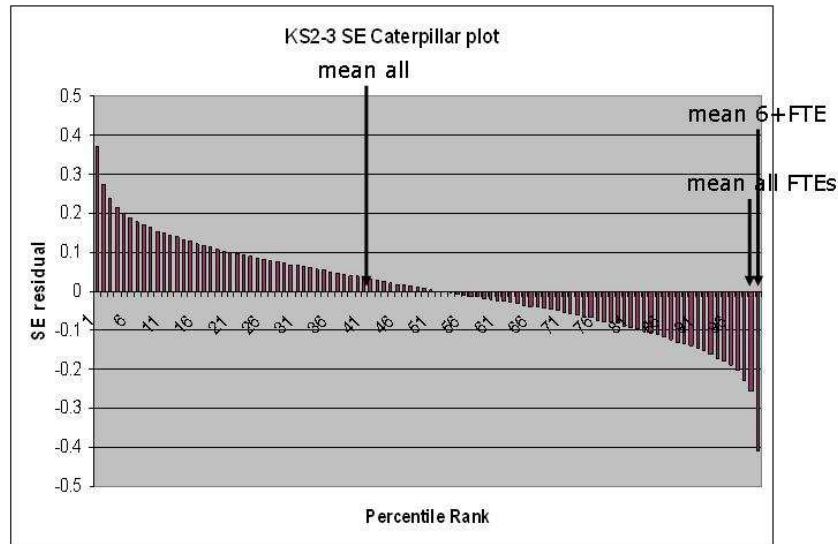
VA progress and fixed-term exclusions

- quasi-student VA scores calculated
 - (mean fine-grade test level minus FFT SE estimate)
- scores analysed for three groups
 - all students, all FTE students, 6+ days FTE
- mean scores were hard to interpret
 - percentile ranks assigned to VA scores using the 2006 percentile rank thresholds from tables in the FFT database
- similar analysis carried out using KS2-3 VA scores to investigate impact of FTE on progress

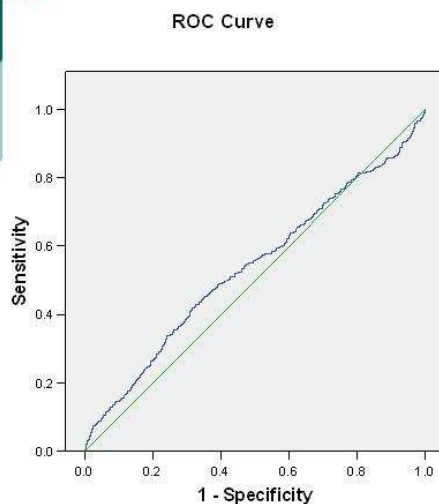
KS1-2 progress - FFT percentile ranks



KS2-3 progress - FFT percentile ranks



VA progress and fixed-term exclusions



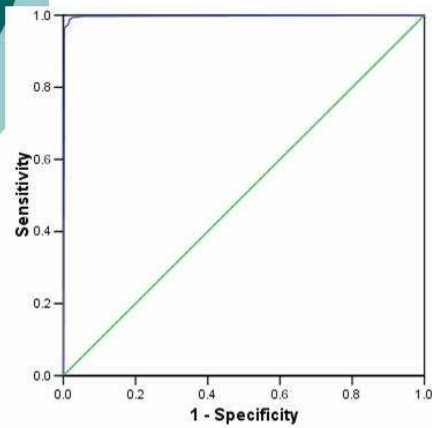
Regression analysis used to calculate the probability of being at risk of exclusion using KS1-2 VA score as the independent variable

Graph shows the predictive power of the VA score is only marginally better than 50:50 (represented by the green line).

ROC – Receiver Operating Characteristic

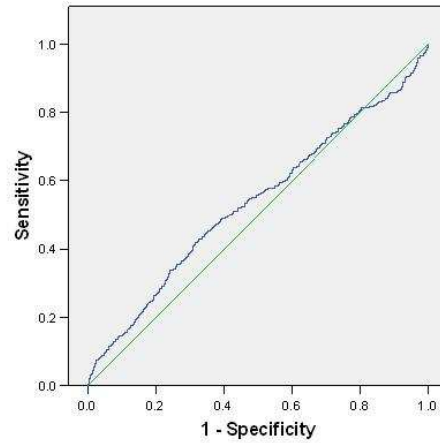


The problems of predicting FTEs



ROC Curve for HIV test

Source: SPSS Case Study tutorials



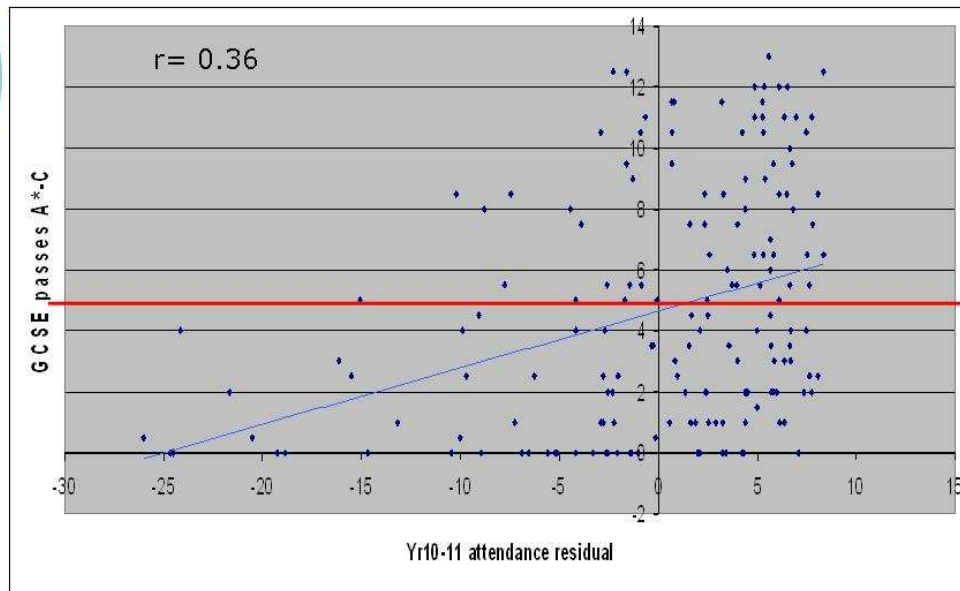
Combining VA scores with attendance data

Does attendance have an impact
on academic progress?

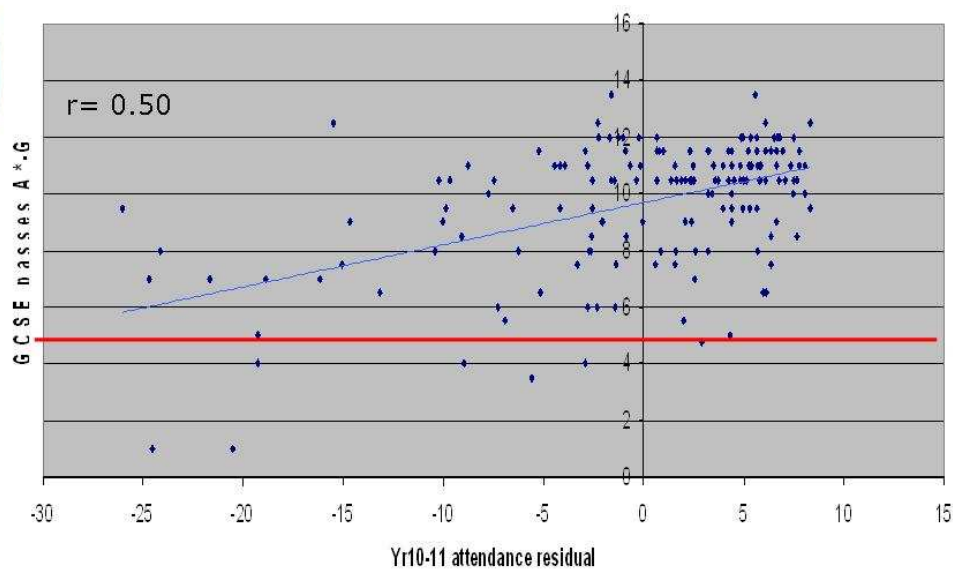
Impact of attendance on academic outcomes

- LA was concerned about the impact of attendance on attainment, especially at GCSE
- Prior analysis of school level data suggested that attendance may indeed be impacting progress
 - for some schools more than others
 - for some students more than others?
 - how would this translate into action within schools?
- Consultation with B&A consultants – pilot work with three schools
- Discussions with pastoral staff in key schools raised questions re attendance & 5A*-G passes
- Suggested student level focus needed to evaluate impact of attendance on various GCSE outcomes

The impact of attendance on attainment A*-C at GCSE



The impact of attendance on attainment A*-G at GCSE

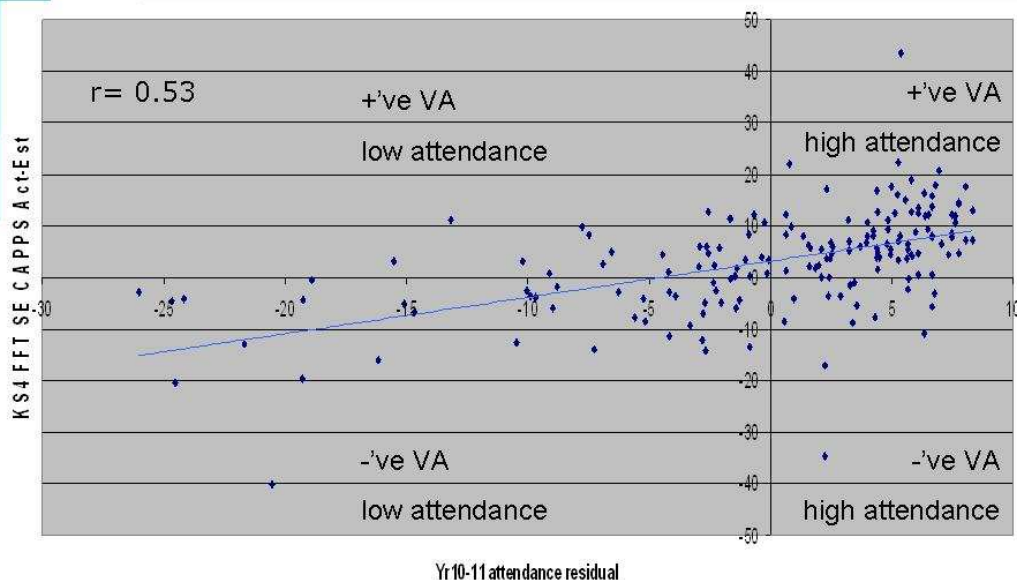


VA progress and attendance

o Methodology

- student quasi-VA scores calculated
 - actual capped pts score minus FFT SE estimate
- correlation of VA score with attendance better than with any 'raw' attainment figure
- attendance 'score' calculated
 - student's mean KS4 attendance minus cohort mean
- produced quadrant plots of attendance vs progress

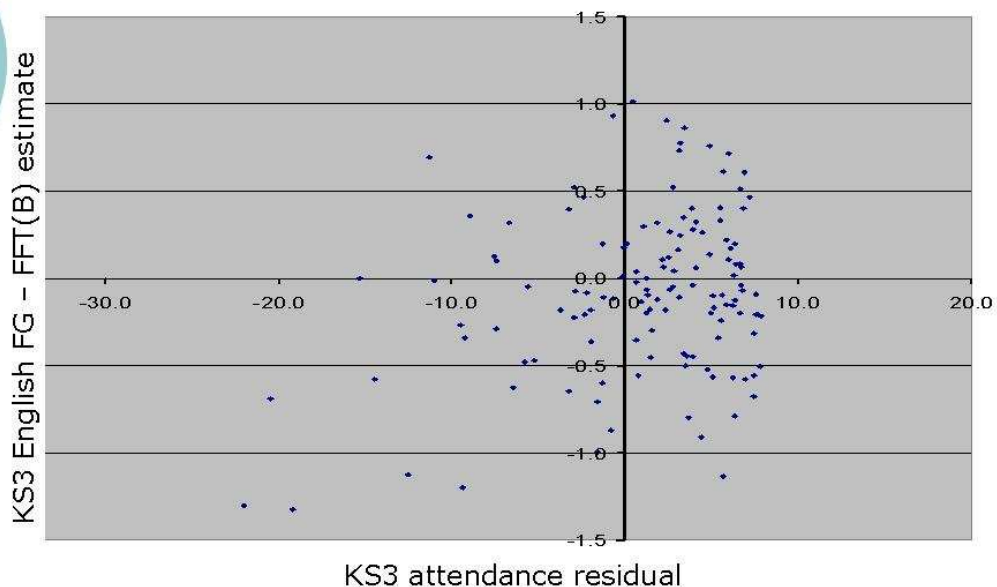
The impact of attendance on progress KS2-4 value added



An opportunity for pro-active monitoring?

- The KS4 analysis gives a useful retrospective on the possible impact of attendance on attainment at the student level
- What about similar quadrant plots to identify students for intervention/monitoring?
 - Issue of accuracy vs utility
 - Waiting for database releases (FFT November, RAISEonline January)
 - Use level threshold scores from QCA to calculate fine grades for each student and each subject

The impact of attendance on progress 2007 KS2-3 value added



Drawing in additional data – Pupil Attitude to School and Self (PASS)

ce vs progress analysis plus PASS.xls

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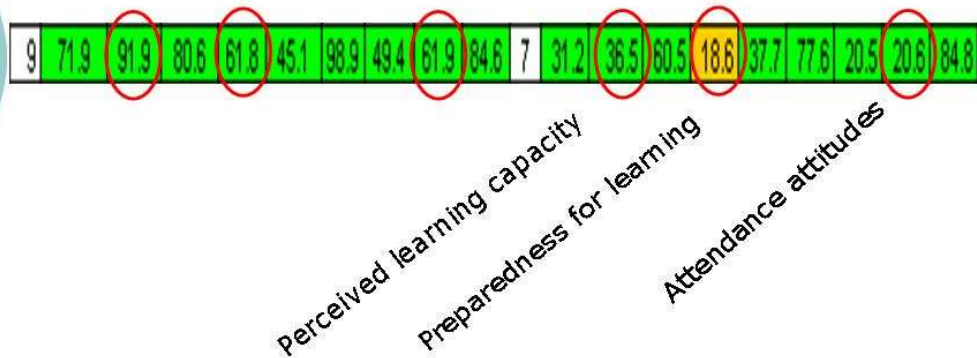
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Informing discussions with students

PASS data – Yr9 ← Yr7

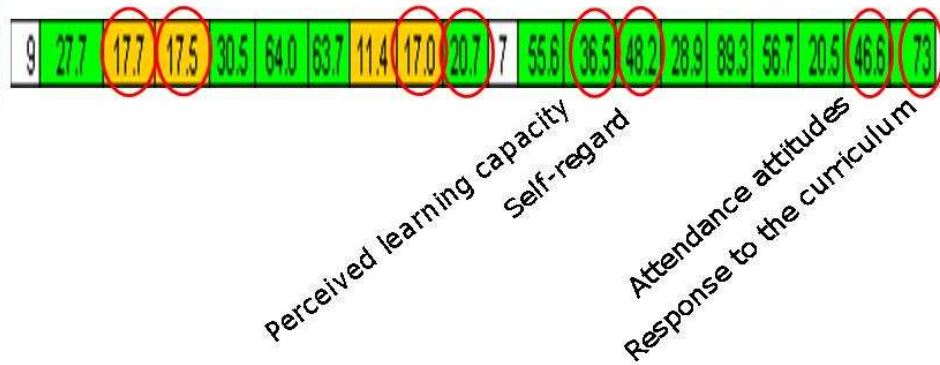


VA and attendance data

Ma(A)	Ma(B)	En(A)	En(B)	Sc(A)	Sc(B)	Attend
-0.38	-0.28	-0.17	-0.07	-0.03	0.07	-2.87

Informing discussions with students

PASS data – Yr9 ← Yr7



VA and attendance data

Ma(A)	Ma(B)	En(A)	En(B)	Sc(A)	Sc(B)	Attend
-0.26	-0.26	0.52	0.52	0.07	0.07	-2.94

Evaluating the impact of SEAL

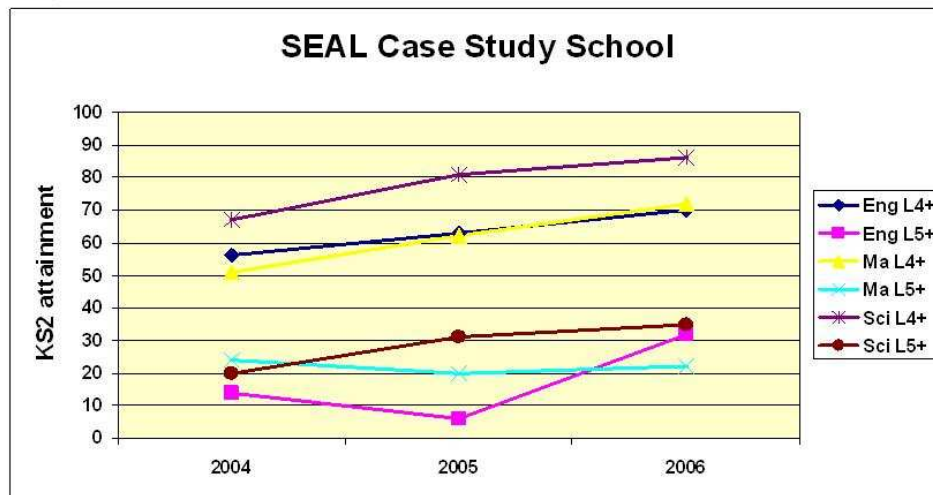
Is it possible to tease out the contribution made to school standards by whole-school, cross-curricular initiatives?

Every Child Matters

- “there can be no school standards without Every Child Matters – and no Every Child Matters without school standards”

Jeffrey & Tabberer, October 2006
Directors General of the DCSF

DCSF SEAL case study



Source: DfES (2006)

KS1-2 VA 97.7 98.4 98.5 (2003: 98.7)

Higher than average proportion of SEN for LA, which in turn is higher than national.

DCSF SEAL case study

Improved attendance - 92.7%(04), 94.5%(05) [94.0%(06)]

Fixed term exclusions down 50% with no permanent in 05

Monitoring shows that children are much more able to sustain independent learning

Improvements self-esteem, resilience, understanding of others' points of view and self-control

Whole-school language established for children and adults to talk about emotions and behaviour

Reduction in the number of serious whole-school incidents recorded.

Source: DfES 2006

Evaluating the impact of SEAL



- A whole wealth of initiatives running in primary schools – DCSF website case study
- What is the unique contribution made by implementing an initiative as broad as SEAL?
- The 'smoothing' effect of school-level data
- The reality of riding the school improvement roller coaster (Thomas 2007)
- Limitations in what numbers can tell us about an initiative like SEAL

Evaluating the impact of SEAL

- Fine tuned self-evaluation both before and during each stage of implementation helps to establish a confirmatory approach to data
- Such qualitative evaluation will inform quantitative data gathering and analysis
- The qualitative data adds both richness and rigour to the data set
 - many voices singing the same tune
 - telling the wider story – crucial for broad-based initiatives

References

- DfES (2005) *Primary National Strategy Excellence and Enjoyment: social and emotional aspects of learning guidance*, Department for Education and Skills).
- DfES (2006) SEAL case study school details available online at <http://www.standards.dfes.gov.uk/primary/casestudies/isp/seal/birchwood/>
- FFT (2006) Self-Evaluation Reports prepared by the Fischer Family Trust, available via download from a secure server. Accessed during December 2006.
- Hallam, S., Rhamie, J. & Shaw, J. (2006) *Evaluation of the Primary Behaviour and Attendance Pilot*, (London, DfES).
- Thomas, S., Peng, W. J. & Gray, J. (2007) Modelling patterns of improvement over time: value added trends in English secondary school performance across ten cohorts, *Oxford Review of Education*, 33(3), 261–295