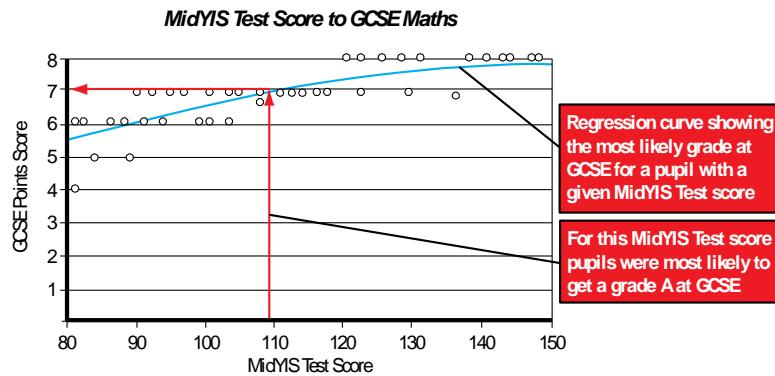
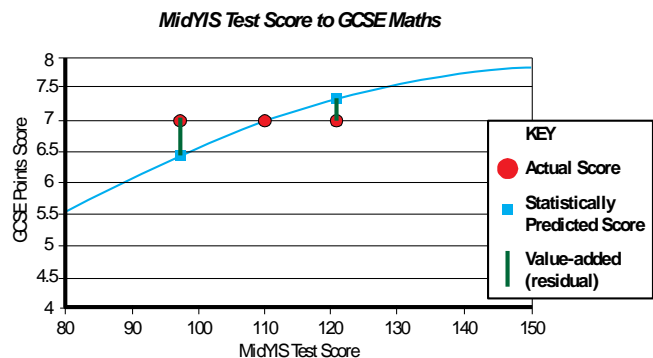
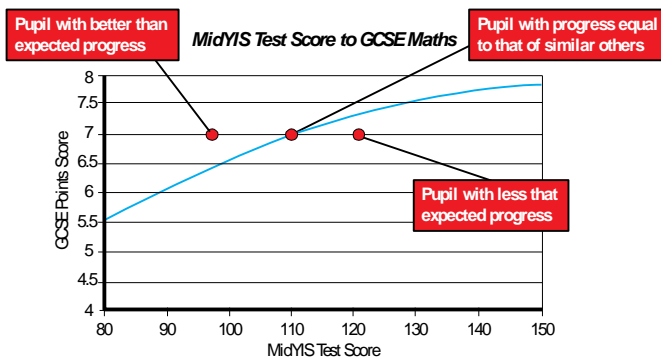


The Concept of Value Added for Independent Schools

Imagine we have a sample of pupils from Independent Sector schools that have taken both a MidYIS Test and a GCSE examination, for example Maths. For each subject we plot the MidYIS Test score against the achieved GCSE grade.



As you can see, in general, a pupil who did well on the MidYIS Test did well at GCSE. Due to the high ability profile of pupils from Independent schools, many such pupils achieve the higher GCSE grades and we find that a curve is the best way to describe the relationship between the MidYIS Test and each GCSE subject. This is a consequence of the A* ceiling; since pupils cannot do better than A* (8 GCSE points) we find that as average achievement approaches A* it behaves as a curve rather than a line. The curve indicates the average GCSE grade attained by a pupil for any given MidYIS Test score. It can be used to give a statistically expected grade – often called the predicted grade. The vertical distance between a pupil's actual grade and the regression curve is termed the residual (or value-added). If the pupil has done better than expected and is above the regression curve, a positive residual or **positive value-added** has been achieved. A result below the regression curve is a negative residual, or **negative value-added**.



Making average or typical progress, a result on the regression curve, gives a value-added score of zero – in line with what might be expected. The statistically correct term for value-added is residual, but perhaps a more meaningful term would be **relative progress**.

If the majority of pupils in a subject group attain positive Value Added, perhaps that subject is being well taught. If the majority attain negative Value Added, perhaps something is going wrong. "Perhaps" is the key word here: there are numerous reasons for fluctuations in Value Added results, some of them beyond a school's control. The results should be interpreted carefully: negative Value Added could be due to staff illness, for instance, or – in a subject taken by few pupils – to one disappointing result. Decisions should not be made on one year's Value Added results; trends should be looked at over time. The CEM software will assist in interpreting the data using statistical process control charts.

Using value-added allows fair comparisons to be made. Your pupils' Maths results, for example, are compared with other pupils' Maths results, so subject difficulty does not affect the outcome. Low ability pupils are compared with other low ability pupils, so a low ability intake is no disadvantage, while similarly a high ability intake is no advantage.