CEM Assessments Summary Years 7-9

Content:

About CEM

CEM - THE CENTRE FOR EVALUATION AND MONITORING AT DURHAM UNIVERSITY

Accurately measuring a child's potential and progress is an invaluable tool in understanding and responding to their individual educational needs.

Used by education professionals for over 30 years in over 70 countries, CEM is one of the largest and longest established research groups providing learning assessment for children of all ages. CEM's methods are research-based, evidence driven and market-tested, built on a foundation of non-commercial academic practice with the School of Education at Durham University.

You can find further information about CEM at http://www.cem.org/

MidYIS OVERVIEW

MidYIS, available at Years 7, 8 and 9 (i.e. ages 11-14) is a baseline assessment and value added system for secondary schools. The MidYIS baseline assessment was designed to measure students' developed ability rather than what has been taught in school. It gives measures of students' underlying potential, and their strengths and weaknesses across four sub-scales: Vocabulary, Maths, Non-verbal and Skills.

The focus of MidYIS's development was to create a system that would be a good predictor of later academic achievement and to provide a baseline for value-added studies. The assessment is computer-based and taken individually by each student. As the assessment is adaptive, each student sees a unique assessment and is challenged at a level that is suitable for them, making the assessment enjoyable, age-appropriate, engaging and time-efficient.

MidYIS, introduced in 1997, is now a leading assessment for students of secondary school age, with over two hundred thousand students taking a MidYIS test each academic year.

The Individual Student Record (IPR)

In the IPR, the following four pieces of information are provided for each student in each of the four MidYIS subsections, as well as an overall score:

MidYIS Band: Each of the four MidYIS Bands (A to D) includes 25% of the representative sample. Band A represents the top 25% and Band D the lowest 25%.

Stanine: One of nine divisions of the normal distribution of MidYIS scores where Stanine 9 is the highest.

Percentile: Percentage of the representative sample scoring less than this student, e.g. if a student has a percentile of 80, this means 80% of students taking the test scores lower than this student.

Standardised Score: Score standardised against a representative sample, where the sample mean is set to be 100 and the standard deviation is 15. If a student is performing exactly in line with the average of the representative sample, then he/she will have a score of 100. A score greater than 100 indicates that the student is performing better than average. A score less than 100 means that the student is performing less well than average.

How do you know whether the student's score is a true representation of their developed ability in a sub-section of the test and whether the student has performed significantly better or worse than average? To answer these questions we need to consider confidence limits. The confidence limits are displayed as error bars around the student's score. When a student takes a MidYIS test it provides a snapshot of the student's developed ability on that particular day. On another day the snapshot might be slightly different. This is to be expected as we are all affected slightly by different experiences, environments and motivations on a particular day that can affect our performance. That said, we would not expect a student's performance to vary greatly and the confidence limits (sometimes called "error bars") show us the range within which we would expect that score to fall most of the time.

What do the sections of the MidYIS test measure?

Vocabulary Score

The Vocabulary and Maths scores are important to the prediction of all subjects. The Vocabulary component of the test is generally an important element for most subjects. For English, History and some Foreign Languages it is the best. However the Vocabulary score is perhaps the most culturally linked of all the scores. Those who have not been exposed to vocabulary-rich language or a wide variety of reading material or whose first language is not English are unlikely to have developed as high a vocabulary score as they would have developed in a different environment. Such students are able to demonstrate other features of their ability through the Maths, Non-Verbal and Skills sections.

Maths Score

The Maths score is well correlated with most subjects but is particularly important when predicting Maths, Statistics, ICT, Design Technology and Economics.

The Maths section has been designed with the emphasis on speed and fluency, rather than knowledge of Maths. Like the Vocabulary score, the Maths score is a good predictor of later academic performance.

Non-Verbal Score

The Non-Verbal score is composed of the three sub tests: Cross-Sections, Block Counting and Pictures. The Non-verbal score is important when predicting Maths, Science, Design Technology Geography, Art and Drama. It provides a measure of the student's ability in 3-D visualisation, spatial aptitude, pattern recognition and logical thinking. It can give an insight in to the developed ability for students for whom English is a second language.

Skills Score

The Skills score is calculated from the Proof Reading and Perceptual Speed and Accuracy (PSA) sections of the MidYIS Test.

In the Proof Reading section students are asked to spot mistakes in the spelling, punctuation and grammar of a passage of text. We often rely on computers to do such tasks but some of the mistakes the students are looking for are of the type that may not be picked up by a computer, for example mistakes such as the miss-spelling of words like 'there' and 'their'. The Proof Reading subtest efficiently measures this highly important skill that anyone producing a piece of writing has to develop.

The PSA section asks students to look for matches between a sequence of symbols on the left and a number of possible choices on the right. Given enough time most students would probably get the answers correct this section measures how quickly students can find a correct match.

The Proof Reading and PSA tests are tests for the modern world, and are designed to measure fluency and speed. They rely on a student's scanning and skimming skills, skills that are desirable in examination situations.