

A Ten Minute
Toolbox



INDIVIDUAL DIFFERENCES

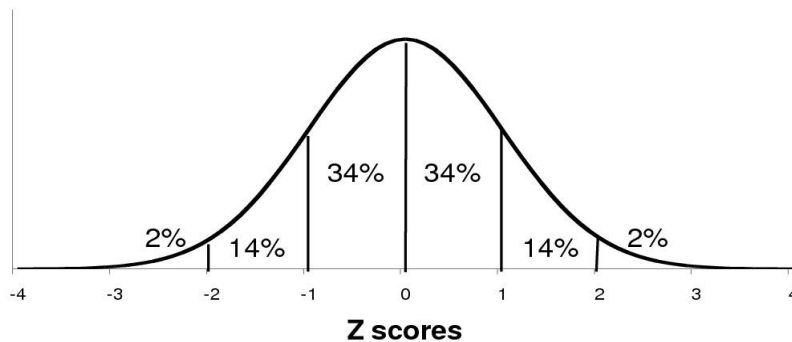
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Individual Differences

Variable personal characteristics which are capable of being measured, such as height, weight and cognitive abilities, are distributed in populations in certain symmetrical proportions, illustrated by the *normal distribution curve* shown below.

The Normal Curve

- In many populations, the distribution of values for a given variable often has a very specific shape



- Very few values are very, very low
- Some values are low
- Many values are in the middle
- Some values are high
- Very few values are very, very high

This curve shows how 68% of individuals will have scores falling within one standard deviation of the mean (the average range), while only 14% will be significantly above average, and 2% very much above average.

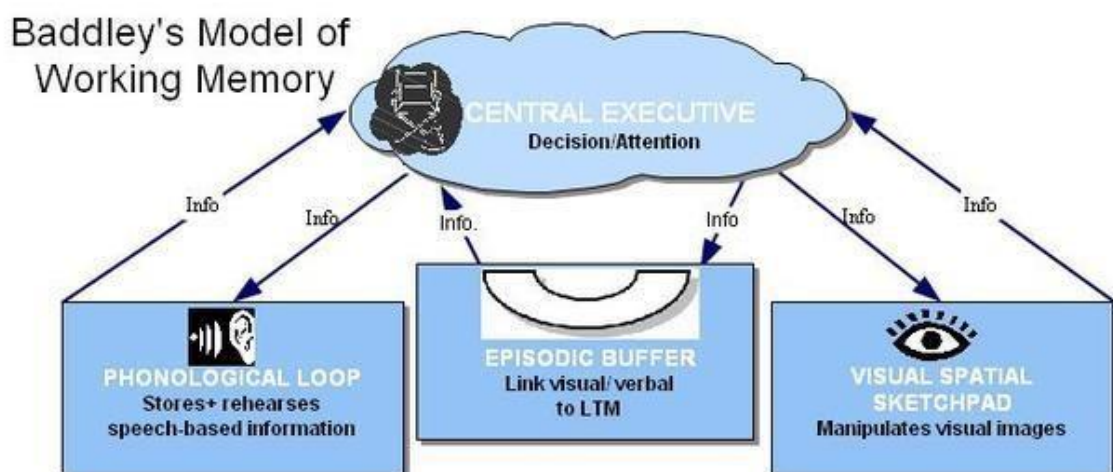
Standardised Scores

Standardised scores for school-based assessments are designed so that the mean is 100, and 68% of scores fall within one standard deviation either side of the mean, between 85 and 115. Children's scores may vary across a range of skills, but generally, attainment scores will fall in line with ability scores. Significant discrepancies might indicate the presence of a specific learning difficulty, which would require further investigation.

Potential Improvement

While it is not possible to alter children's overall ability, cognition is strongly linked with working memory skills. Poor working memory is a feature of some learning difficulties, because it reduces the amount of information a child can process at any one time, and fragments the processing, so that it is hard to grasp the bigger picture. Working memory is the part of the memory system involved in learning, therefore better working memory will strengthen a child's cognitive platform and make it easier for them to learn.

Working memory comprises a Central Executive, which is the portion under conscious control and focuses attention, as well as two 'slave' systems, which are like audio and visual media recorders, but with strict capacity and time limitations. These limitations can be stretched by rehearsal and chunking strategies. A model of working memory is shown below.



Working Memory Training

Cogmed working memory training has been shown to improve all areas of working memory, and when followed by an appropriate catch-up programme, improve literacy and numeracy skills and increase scores on some standardised tests.

To find out more about Cogmed working memory training, and how it might benefit your child, please speak to the class teacher or SENDCo, or visit www.training.cogmed.com, where you may try a demonstration version of the programme by entering the username and passwords *test/test99*.

