

Assessing Your Child's Intelligence

By Ric Chong MBPsS, Assoc MAPS, MEd PsyEd (Manchester), MSc (Keele), BA (Hons)(Wolverhampton)



With over a decade of experience as a cognitive training practitioner working with children and adolescents between the ages of 4 and 17 in Singapore, I have developed an interest in applying mental imagery to aid learning. One day, in 2005, my students were asked to draw some pictures on a piece of A4 paper after the engagement of visual mental imagery. To my surprise, I discovered that some children could draw very beautiful pictures, and that those who possessed this skill tended to be those of above average intelligence. Since then, I have collected thousands of children's drawings and monitored the amazing changes in their drawings over time throughout their cognitive training.

Using Children's Drawings to Measure IQ

The study of children's drawings covers different concepts and is thus used as an instrument to estimate various types of functions. In particular, children's drawings are very often linked to their IQ. Developed by Goodenough in 1926, Draw-A-Man test was the first scoring system to measure intelligence through children's drawings.

Imagery Drawing Test Research at the University of Manchester, UK

In 2011, I performed a correlation study examining the relationship between drawing test scores and IQ. Children's nonverbal intelligence was measured using three different assessment tools, namely the Raven's Coloured Progressive Matrices (CPM), the Goodenough-Harris Draw-A-Person test (DAP) and the Imagery Drawing Test (IDT).

684 children between the ages of 7 and 11 from a public elementary school participated in the study. Each child was set to complete all the three tests. The results revealed strong correlation between DAP and IDT scores. IDT scores were modestly associated with CPM scores; DAP scores to CPM scores were, likewise, modestly associated. Results showed that IDT was the best predictor variable for both DAP and CPM, thereby indicating IDT as a highly feasible alternative drawing test to the traditional DAP for measuring children's intelligence.

The following are some Imagery Drawing Test (IDT) samples:

The Knowing Child

Female, 6 yrs 7 mths, IQ = 95 Percentile Rank of 11 yrs old
(After 1 yr of Cognitive Training)



Male, 9 yrs 7 mths, IQ = 95 Percentile Rank of 12 yrs old
(After 3 yrs of Cognitive Training)



Female, 12 yrs 8 mths, PSLE 265
(After 1 yr of Cognitive Training)



Male, 14 yrs, IQ = 95 Percentile Rank of 19.5 yrs old
(After 1 yr of Cognitive Training)



Two Students are taking IDT at Ric Cognitive Learning Center

Latest Development of Drawing Test

In 2014, there was heavy media coverage on the topic of children's drawings and their intelligence. Researchers from King's College London, conducted a 10-year study on 7,752 pairs of twins to find out the relationship between children's drawings and their IQ. At the end of the study, they concluded that children's drawings predict children's intelligence as well as their intelligence a decade later.

Children's mental representations through drawings can provide us with some ideas about their IQ. However, it must not be the only means of measure and should be used in conjunction with other forms of assessment.

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Ric Chong is a cognitive psychologist and founded Ric Cognitive Approach® in 2005. He was educated in England and graduated from University of Wolverhampton, UK, with a B.A (Hons). He also holds a Master of Science degree from Keele University, UK, and a Master of Education in Psychology of Education from The University of Manchester, UK. During his studies of Doctorate in Education (Ed.D) at the University of Leicester, UK, specialising in learning and teaching, he developed his unique "Multiple Coding Theory" and invented "Imagery Drawing Test" in 2006. He specialises in **Evidence-based Cognitive Training for IQ, Memory and Academic Performance**. Please visit www.riccognitive.com or www.ricpsy.sg for more information.