Raven's CPM: Its Role in the Assessment of SLD

AP.Dr.Narasappa Kumaraswamy
Consultant Clinical Psychologist
School of Medicine, UMS

A specific learning disability(SLD) is demonstrated by a significant discrepancy between

a pupil's general intellectual ability and academic achievement in one or more of the following areas: oral expression, listening comprehension, mathematical

or mathematics reasoning, basic reading skills, reading comprehension, and written expression.

calculation

specific learning disability is demonstrated primarily in academic functioning, but may also affect self-esteem, career development, and life adjustment skills. A specific learning disability may occur with, but cannot be primarily the result of: vision, hearing, or motor impairment; mental impairment; emotional disorders; or environmental, cultural, economic influences; or a history of an inconsistent educational program

SLD refers to a heterogeneous group of disorders where significant difficulties in the acquisition and use of

Listening speaking Reading Writing Reasoning

or

mathematical skills are present

Assessment of SLD by a Clinical Psychologist allow the clinicians to Make Diagnoses of SLD Understand the severity of the disability. Construct a Learning profile of the child. Make a recommendation for specialized instructions and accommodation of the child.

Assessment:
Gather history of the child.
Standardized assessment
Behavioral Observation
Diagnoses of SLD

The demonstration of a severe discrepancy shall based solely on the use of standardized tests. The team shall consider these standardized test results as only one component of the eligibility criteria.

The instruments used to assess the pupil's general intellectual ability and achievement must be individually administered and interpreted by an appropriately licensed person using standardized procedures

The use of a single assessment instrument without corroborating information as the sole basis for the identification of an SLD criteria component is not acceptable.

Raven's Progressive Matrices was designed primarily as a measure of Spearman's g. The test has no time limit. There are 3 different tests for different abilities:

Colored Progressive Matrices (younger children and special groups)

Standard Progressive Matrices (designed for 6 to 80 year olds)

Advanced Progressive Matrices (designed for adolescents & adults)

Raven's coloured progressive Matrices is internationally recognised as a culture-fair or culture reduced test of non-verbal intelligence for young children (Raven et al., 1990).

Coloured Progressive Matrices:

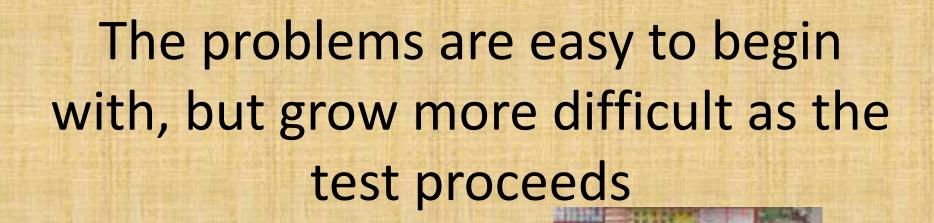
(CPM) Designed for younger children, the elderly, and people with moderate or severe learning difficulties, this test contains sets A and B from the standard matrices, with a further set of 12 items inserted between the two, as set Ab. Most items are presented on a coloured background to make the test visually stimulating for participants.

Raven's Progressive Matrices - The

Raven Progressive Matrices test is a widely used intelligence test in which subjects are asked to find the missing pattern in a series. Each set of items becomes progressively more complex, requiring greater cognitive capacity to encode and analyze.

In this version of the Raven's Progressive Matrices however, each item is printed with a brightly coloured background, making the test more appealing for children.

The testee is shown a series of patterns with parts missing. The parts removed are of simple shape and have been placed below the matrix, among other similarly shaped pieces

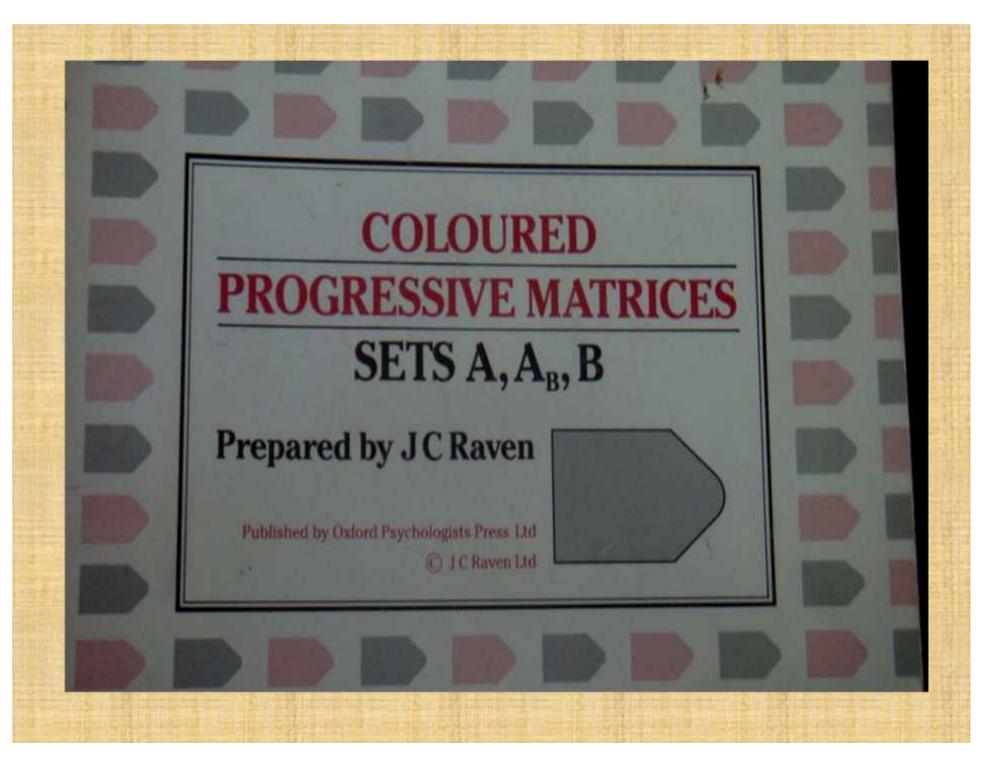


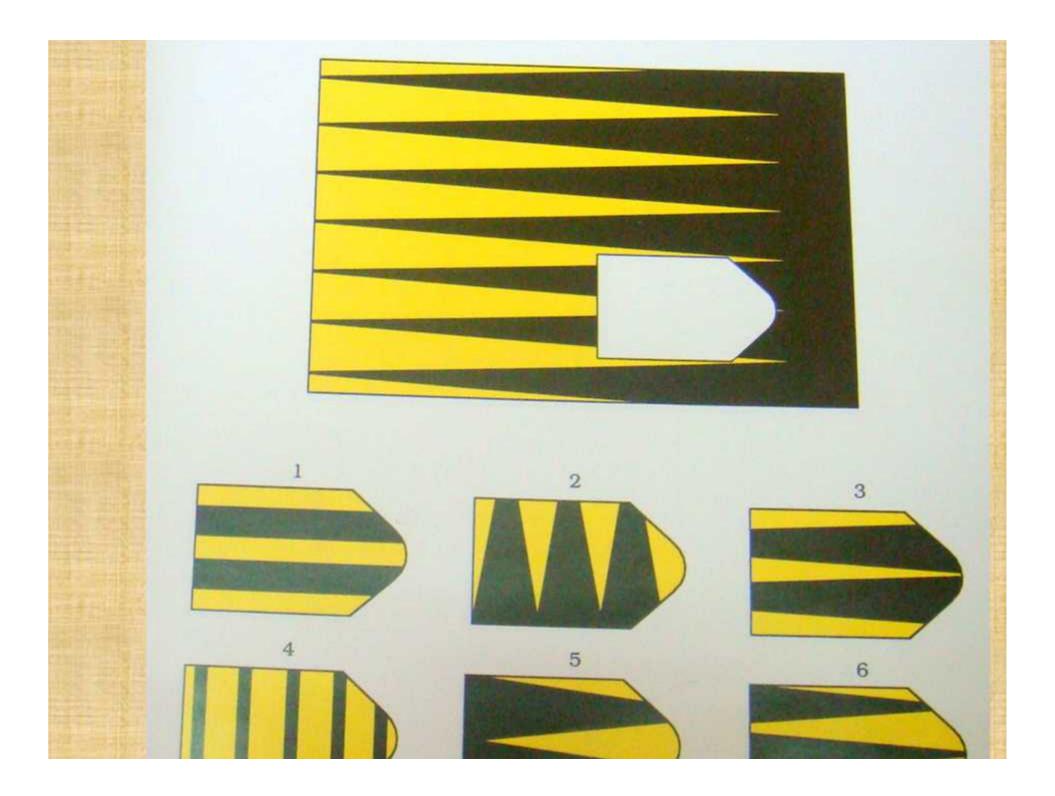
The testee can either point to the pattern piece s/he has selected or write its corresponding number on the record form

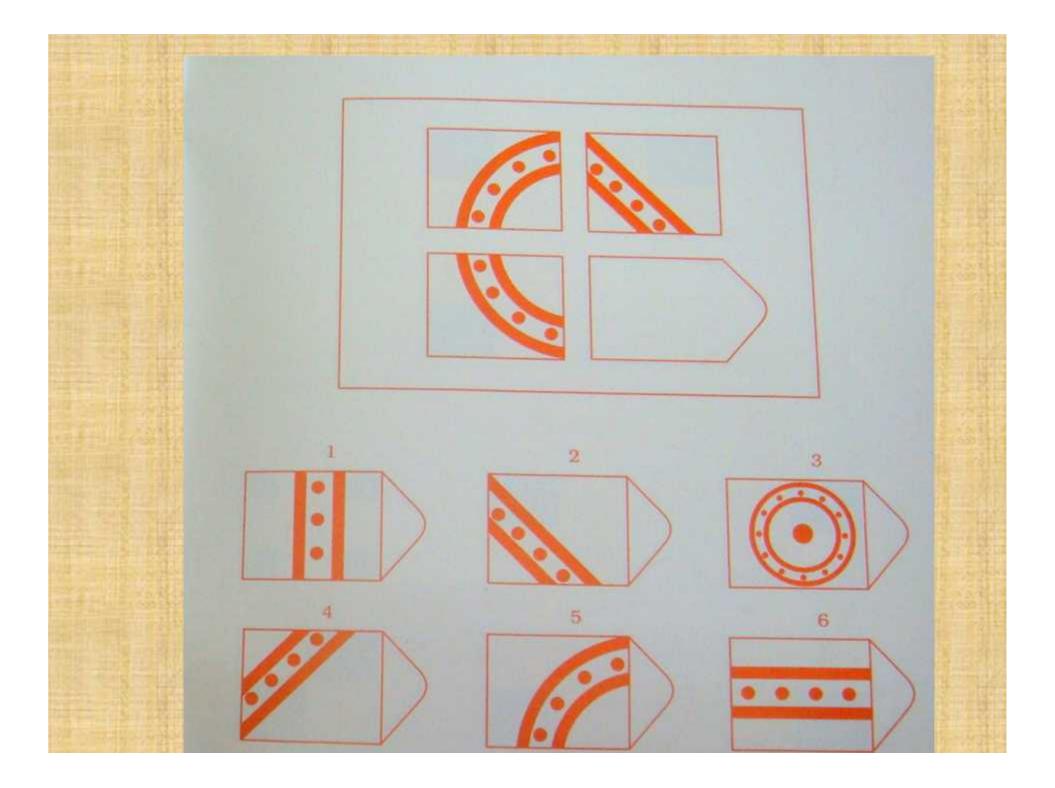
The total score is the total number of matrices completed correctly, and the test is thus scored out of 36

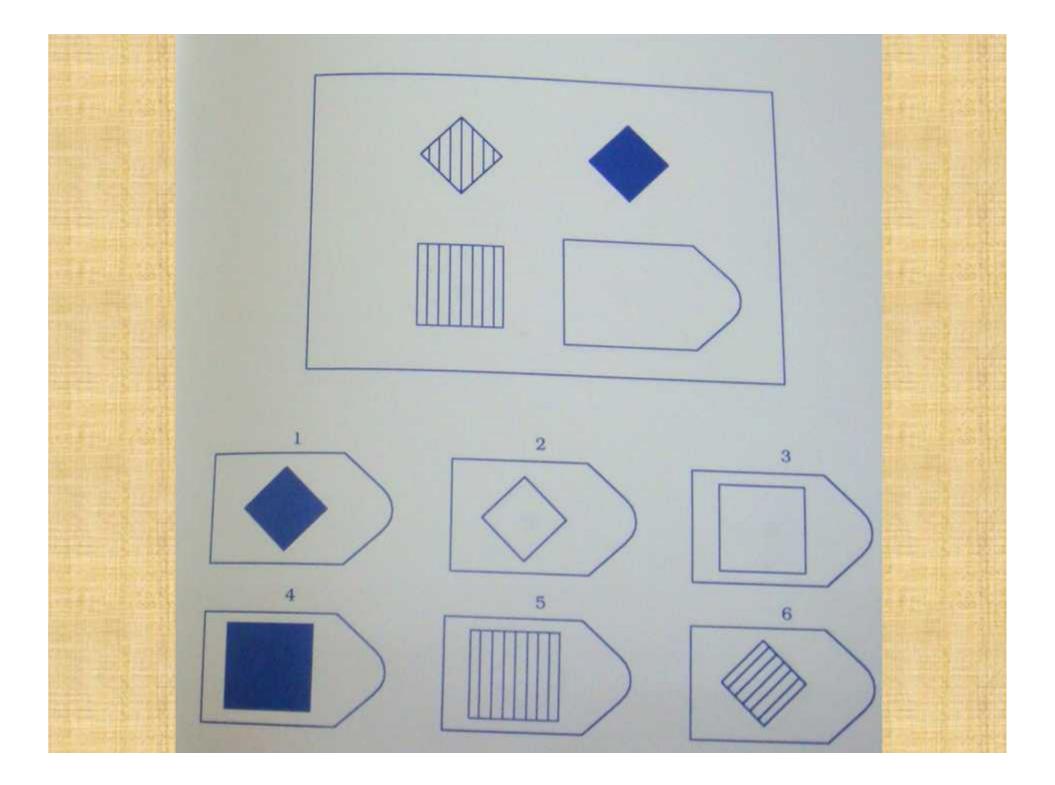
The child's mental age is thus the age at which the median score is equal to his or her raw score

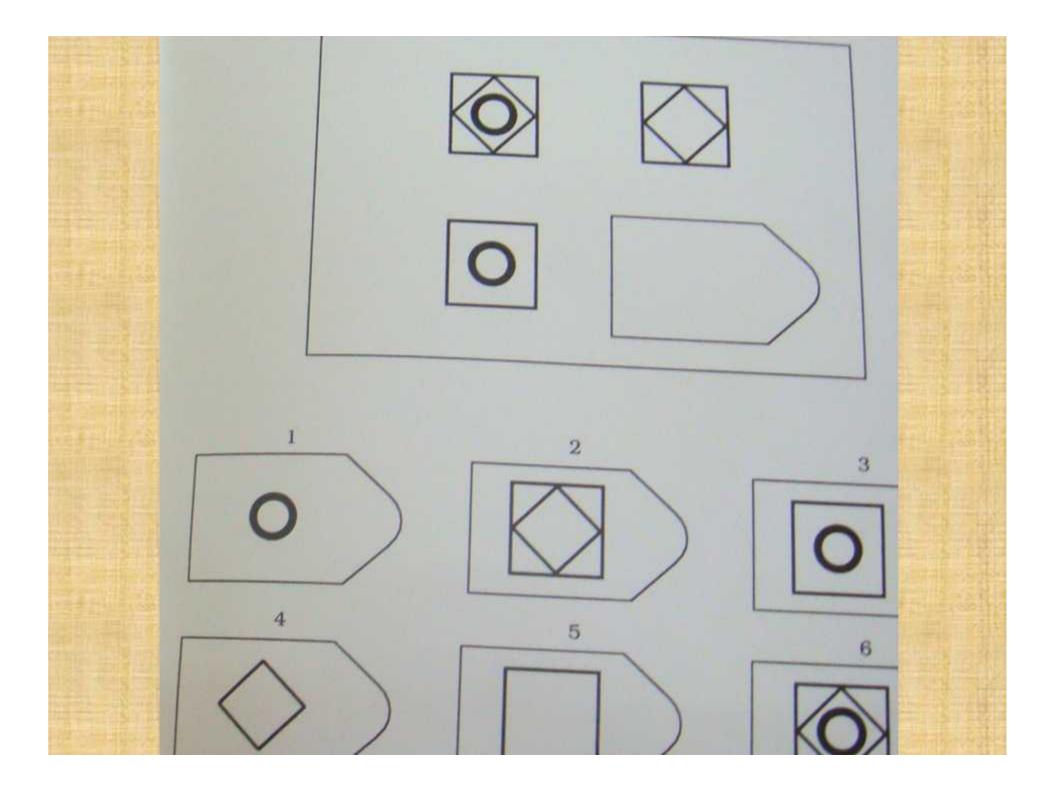
the Raven's CPM test gives an indication of the level of analogical thinking and abstract thought that a person has achieved and for this reason, it is a good measure of the level of intellectual development that s/he is able to utilise at this stage.











An indication of the objective data used to conclude that the student has a

disability and is in need of specialized instruction, which may include the following:

- test scores previous assessments
- work products
 observational data
- self-reports ecological assessments
 - teacher comments other developmental data

Administration: This test can be administered individually or as a group test. It is simple & economical .The CPM sets A, Ab, B is arranged to assess mental development up to the stage when a person is sufficiently able to reason by analogy to adopt this way of thinking as a consistent method of inference.

Some of the most fundamental research in cognitive psychology has been carried out with the RPM. The tests have been shown to work - scale - measure the same thing in a vast variety of cultural groups.

Two remarkable, and relatively recent, findings are that, on the one hand, the actual scores obtained by people living in most countries with a tradition of literacy - from China, Russia, and India through Europe to Kuwait are very similar at any point in time.

Results are tabulated in the form of IQ scores of each child by indicating average or below average in intellectual efficiency. As per the present definition of specific learning disability, the child should have average intelligence. If any child has below average intelligence as assessed by IQ test with disability in any sensory functions will be classified as having learning disorder.

Exclusionary Factors.

Each factor must be ruled out as the PRIMARY reason for the student's inability to progress in the general education curriculum

Lack of Instruction in Reading and/or Math has been ruled out.

School attendance has been appropriate. Yes ____ No _ There is a history of excessive school transfers. Yes Interventions have been implemented and documented. Yes No

Vision, Hearing, Motor/Impairments have been ruled out.

Vision Date	
Passed	Failed
Hearing Date	
Passed	_Failed
Is there evidence of motor	
impairment? Ye	es No

Mental Retardation has been ruled out. Cognitive Score

Emotional Disturbance has been ruled out. Student does not exhibit or have a history of emotional difficulties that interfere with learning

Environmental, Cultural, or Economic Disadvantage. S-Team review and evaluation results do not indicate

that learning deficits are primarily caused by environmental, cultural, or economic disadvantage

Lack of Motivation. S-Team review and evaluation results do not indicate that learning deficits are primarily caused by a lack of motivation.

Situational Trauma.

Has the student's academic performance fallen
dramatically within the last 6-12 months?
Yes No
Is there knowledge of any situation within the
student's family that could contribute to a drop
academic performance. Yes No
nformation gathered indicates situational trauma
is not the determinant factor for the academic
deficit. Yes

SPECIFIC LEARNING DISABILITIES – ASSESSMENT WORKSHEET

To be completed by Assessment Specialist(s)

School Psychologist

Cognitive Assessment Instruments

Wechsler Intelligence Scale for Children
Wechsler Preschool and Primary Scale of
Intelligence - Revised
Stanford-Binet Intelligence Scale (Fourth
Edition)

Kaufman Brief Intelligence Test
Kaufman Assessment Battery for Children
Raven Coloured Progressive Matrices
Raven Standard Progressive MatriceS



