Unit 4: Identification and Assessment of Visual Impairment

4.1 Interpretation of clinical assessment of vision

Clinical assessment, as the name indicates, refers to assessment of vision by the medical professionals. It includes an assessment of the medical condition and its management. The purpose of clinical assessment is diagnostic. Clinical assessment of vision should be comprehensive to determine further interventions. The teachers should be able to interpret the medical report before carrying out the functional assessment.

4.2 Functional assessment of vision: Concept, need and methods

The term functional vision is associated with the name of Natalie Barraga, a pioneer, who defines functional vision as 'how a person uses whatever vision he may have'. Functional vision assessment determines how well a visually impaired person is able to use the visual abilities and skills s/he possesses. This can be assessed using criterion referenced checklists which cover areas & skills like visual functions, academics, mobility, activities of Daily Living (ADL) etc. Some functional vision assessment procedures are- Teacher's Guide for Evaluating Visual Function(Efron & Duboff,1975);Programme to develop efficiency in Visual functioning (Barraga,1980); Functional Vision Inventory for the Multiply and severely handicapped(Langley,1980).

4.3 Tools of functional assessment of vision and skills: Functional skills inventory for the blind (FSIB), Low Vision Assessment by Jill Keeffe, Lea tests, and Portfolio assessment

A number of functional vision assessment devices have been developed in India and overseas. One such tool is Functional skills inventory for the blind (FSIB) developed by Bhan & Swaroop (2008). It is a criterion referenced tool to assess the functional skills of blind children and adolescents. The FSIB has two parts- the first relates to the demographic profile of the child; and part two covers 12 developmental areas, which are –Gross Motor Skills, Fine Motor Skills, Spatial Awareness, Sensory Awareness, Environmental Awareness, Social & Emotional Awareness, Temporal Awareness, Cognitive Skills, Language Skills, Comprehensive, Academic Skills, Daily Living Skills and Orientation & Mobility Skills.

Jill Keeffe developed low-vision tests for the WHO. These tests, easy to administer & interpret and simple to use, are for the screening of low-vision. These tests assess the near and distance visual acuity and are based on E test. There are specific procedural guidelines for assessment.

The LEA tests are a series of children's tests who can't read alphabets on snellen charts. Lea tests can be used for near & distance visual acuity, visual field, contrast sensitivity, colour vision, perception of movement etc. The oldest form of the LEA test is LEA symbol Test, which uses an apple, a pentagon, a square and a circle as test symbols to recognise by pre school children and to determine their visual acuity

The term Portfolio assessment applies to a wide range of flexible assessment procedures. But, aims at making realistic educational assessment. A portfolio is a cumulative record of a student's work in specific areas over a long period of time, on which his/her progress is documented.

4.4 Tools for psychological assessment of the visually impaired: Vithoba Paknikar Performance Test, A short Scale IQ measure for the visually impaired based on WISC-R, Adapted EPQ, Adapted Blind Learning Aptitude Test, Concept development for blind children, Reading Preference Test, Cornell Medical Index for Visually Handicapped Children

Vithoba Paknikar Performance Tests for the Blind (1978) are for the subjects in the age range of 8-22 & above. It is a performance measure to assess intelligence. According to Paknikar intelligence has three elements- . comprehension, memory and reasoning. The tests in this scale are based on tactual and kinaesthetic experiences of the subjects. The materials used are wooden circles, squares, hexagons, triangles, steel rods with threaded ends, plastic plates, steel cylinders etc. The longest times to complete the tests is assigned low score and vice-versa.

A short Scale IQ measure for the visually impaired based on WISC-R, was developed by Singh (1986), NIVH, Dehradun. This is a verbal Intelligence scale for the blind in hindi. The sub tests include information, Digit Span, Arithmetic, Similarities and comprehension.

Adapted Eysenck Personality Questionnaire (EPQ) is a hindi adaptation of the personality Questionnaire developed by Eysenck & Eysenck (1975). The questionnaire was standardized on the visually Handicapped population by Singh (1986). The tool has 90 items and measure three dimensions of personality-Neuroticism, Psychoticism and extraversion.

Adapted Blind Learning Aptitude Test (BLAT) is an instrument developed specifically for use with visually impaired persons. The BLAT is an individually administered test that incorporates items from other intelligence tests in an embossed form. It is a very useful tool for the evaluation of intelligence of visually impaired children.

The Reading Preference Test (REPT) was developed by M.N.G. Mani at Coimbatore in late 1990s. The test can be used to determine the Braille or print reading preference of a low vision child. The test comprises of a checklist which helps the teacher or the parent to find out visual efficiency of a low- vision child. The test is highly reliable with a reliability coefficient of 0.942. The areas covered for assessment of reading preference in the test are like light perception, light tracking, detecting hand movements, finger counting, colour detection, eye hand/eye foot

coordination, print size preferences with and without magnifiers print & Braille reading skills, writing ability and writing speed.

Cornell Medical Index for Visually Handicapped Children CMI-HQ(V.H.) is an adapted version of CMI by Singh (1986), NIVH, Dehradun. The test has 195 questions grouped under physical health (144) and psychological health (51) section. This is a verbal test and has two forms-male and female. The questions in the test asses the physical and psychological health of the Visually impaired.