



Optical instruments

Lecture 2

City University Test

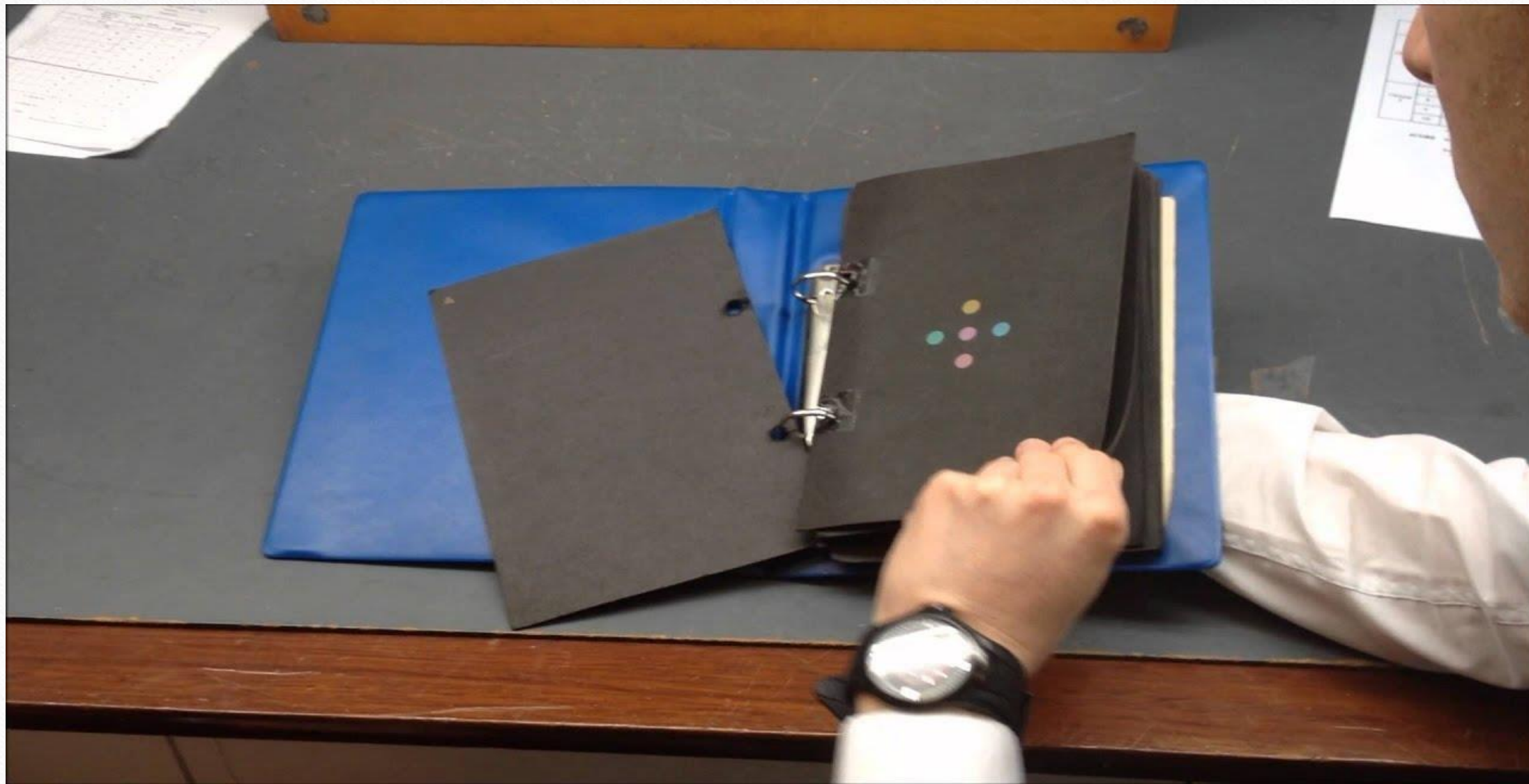
M.Sc

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City University Test

(CUT) 2nd edition contains ten test pages. Each page has a central reference color and four surrounding test colors.

This test may performed monocular or binocular depending on the type of color vision defect suspected (congenital defects are usually bilateral and symmetrical, hence the test may be performed binocularly)



Cont.

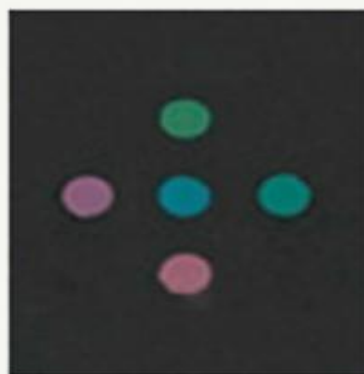
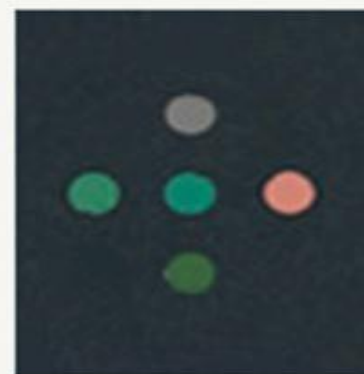
If possible the test should be performed under a daylight globe.

According to the instruction booklet patients should be given three seconds per plate, thus to perform the test monocularly.

plates

Plate one to six have colored circles 8 mm in diameter and plates seven to ten have 4 mm diameter colored circles.

On each plate one of the surrounding circles is very similar in color to the central circle and the other three are different colors



How to test

The patient is asked to look at the central circle and then to tell the examiner which one of the four surrounding circles is most similar in color to the central one (i.e. the circle to the top, bottom, right or left of the center circle)

To score the result of the test, the examiner circles the response of the patient gives for each plate

Cont.

Plates one to six called (Chroma four) plates are not excessively difficult, hence patients with Only mild color vision defect may get most of these plates correct. In plates seven to ten (Chroma two) plates it is more difficult to differentiate the colors, thus it is more difficult to respond correctly .

If a patient makes 2 or more errors on any of these 4 plates, they are said to have a color vision deficiency.

Farnsworth- Munsell 100 hue test

It is a useful and sensitive test for measuring the changes due to neuronal disease

As well as helping to identify various congenital & acquired color vision deficiencies.

What is consist

It is consist of 85 colored cap, the caps are arranged in four boxes.

They are numbered on the back according to the correct color order of the hue instruction manual and scoring sheets are provided

There are 22 caps in the box 1 and 21 caps in each of remaining three boxes.

How to do the test

The goal of this test is to place the color palettes in the correct order based on color hue

1. The first and last color chips are fixed.
2. The observer is instructed to “arrange the caps in order according to color” in the lower tray.
3. The generally recommended time for arranging each panel is 2 minutes
4. Complete all four color tests



The score

The total error score (TES) is a measure of accuracy of an observer in arranging the caps.

The higher the number of misplacements the larger the TES.