**Exercise 9**

**Factorial Analysis of Variance.**

These exercises have been prepared for use in conjunction with Chapter 9 of the 7th edition of “SPSS for Psychologists” by Harrison, Kemp, Brace, and Snelgar (2020).

It has been suggested that some dyslexic children are affected by the colour of the paper and text when trying to read, possibly because they find the “glare” of white paper off-putting. To investigate this 15 dyslexic and 15 non-dyslexic male year 7 school pupils were tested. All participants were asked to read 3 matched passages as quickly and accurately as possible. The time taken to read each passage was recorded and a 5 second penalty was added for each error made. One passage was presented in white on black paper (W/B), one printed in black on white paper (B/W) and one in black on yellow (B/Y). Each participant saw each colour combination once, and the order in which the passages were read and the pairing of passage to colour combination were determined at random for each child. The data from this study are tabulated in Table 1 below.

1. Describe the design of this study.
2. Prepare a data file for this study.
3. Analyse the data to determine whether there is any evidence that text/paper colour combination affects reading speed in dyslexic children.
4. Write the results section of a report describing the outcome of this study.

