Using Microsoft Word to take the strain out of writing your thesis

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Handout from www.bruce-evans.co.uk for regular tweets on optometric research

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**PLAN**

- Introduction
- Making the most of Styles
- The power of Outline
- Captivating Captions
- Typography & other pedantry
- Crisis avoidance
- Conclusions

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"The Institute of Optometry is unique in being an independent, self-financing charity dedicated to the promotion of clinical excellence, research, and education in optometry."
Roberson (1989)
Introduction

- The speaker is not an IT expert...but has used Microsoft Word to write
- Over 240 publications, including 7 books
- Most of the audience will know more about some aspects of Word than me
- I apologise for “teaching my grandmother to suck eggs!”
- BUT: Word has such an extensive set of features that we probably all have something to learn
- Please share your top tips throughout the presentation

Resources for advanced Word users

- Help
- Google
- Books
- Friends

Your Viva may be the last exam of your life

- So get it right!
- First rule of an exam:
  - Read the question...so
  - Read the Code of Practice
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Making the most of Styles

- Use Styles for all headings and for specific types of text
- Example document
  - Using Word to take the strain out of writing a thesis, example.doc
- Home, Styles or
- Right click on the text you want to be a Style & select the Style you want
- To change a Style:
  - Make the text the way you want
  - Highlight the text
  - Right click
  - Right click on the Style you want to change to that format
- You can change font, size, bold, spacing, etc
Making the most of Outline

- Every thesis should start with a thesis plan
  - The best way to do this is Word Outline
- Only works if your headings are set up as Styles
- View, Outline, Show Level, 2
- Can move whole sections at ease
- View, Show, Navigation keeps a constant outline view on screen
  - Useful for jumping to another section

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Caption & Cross-reference

- Use captions when you wish to insert a Figure, Table, Equation, etc.
- References, Insert Caption
  - Choose from Figure, Table, Equation
  - The Style should be set up with Styles
  - Will automatically renumber the Caption
- When you cite the Figure, use
  - References, Cross-reference
- Use same principle for headings
- When sections are moved, the links are maintained and everything renumbered automatically

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**Typography**

- Two sides of the coin
  - **Legibility** improved by increasing contrast and luminance
  - **Sensory visual stress** worsened by increasing contrast and luminance
- Upper portion of letters carries more information than lower portion
- Upper portion of letters carries more information than lower portion

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**Typography (joke e-mail)**

Subject: Vrey intreetsing

Aoccdng to a rschearch at an Elingsh unervtisy, it doen't mttaer in wat crder the ltteers in a wrod are, the olny iprmoetnt thng is taht frist and lsat ltteer is at the rght pclae. The rset can be a traiil mses and you can sitll raed it wouthit porbelm. Ths is bcuseae we do not raed ervey ltteer lytter by it slef but the wrod as a wlohe. ceehiro
Ergonomics of reading: conventional view

- Some research suggests that serifs help
- Italic type slows reading by 15%
- 9-12 point ideal
- The inter-line spacing should be greater than the spacing between words
- Vertical columns to avoid horizontal saccades does not improve reading efficiency
- Double column presentation preferred
- Avoid glossy paper
- Visual symptoms in 45-94% of VDU users

Font style

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Font style: Comic Sans MS

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Font style: Verdana

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Garzia, 1996

Font style: Opensans

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Garzia, 1996

Text size & speed of reading

- Children of all ages make more errors with smaller text
  - Particularly those with sensory visual stress
  - Not known if this applies to adults
- Increasing text size & spacing helps many, disadvantages no-one

Hughes & Wilkins (2000)

- Dyslexic children require print sizes that are 32% larger than controls for max reading speed

O’Brien, Mansfield, Legge (2005)
Typography: recommendations

- If in doubt, use larger fonts
- Most thesis examiners will have worse vision than you
- 12 point routinely, 11 point minimum
- Use widely spaced lines
- Avoid strong colour contrasts

Spelling and grammar

- Never ignore a blue double underline
- Never ignore a red squiggle
- If you think Word "cries wolf", then you have not trained Word properly!
- Make sure language is English (United Kingdom) & add technical words you use to your dictionary
- Review, Check Document, Settings, Custom Dictionaries
**Track Changes & Comments**

- Review, Track Changes
- Essential for the supervisory process, but can be over-used
  - Accept All before next review, leaving any remaining queries in as Comments
- Ask thesis examiners if they want to see a version with
  - Changes accepted
  - Track Changes shown
  - Changes highlighted

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**Other stuff**

- Have multiple versions of the same document open
- Multiple monitors helps
- Cross-reference to pages using ppp
- Use reference manager software

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**When to write the thesis**

- As you write your RES2...
  - Use Word to develop a thesis plan
  - Copy & paste from your RES2 into your thesis
- As you search the literature
  - Write up your search methodology in your thesis
- As you study the literature
  - Write up the papers you read in your thesis
- As you carry out your research
  - Write up the methods in your thesis
- As you analyse your data
  - Write up the results in your thesis
- As you ponder your results
  - Write up the discussion in your thesis
- Edit, submit, sorted!
- The number of edits is directly proportional to the quality of thesis
**Document discipline**

- At every major revision where there is a chance you might need to look at an earlier version: Save As, with a new version number.

**Be afraid…**

- Solar flares will at some point “knock out electrical power grids for extended periods of time”.
- On July 23, 2012, a massive, potentially damaging solar storm (solar flare, coronal mass ejection and electromagnetic radiation) barely missed Earth. In 2014, Pete Riley of Predictive Science Inc. published a paper in which he attempted to calculate the odds of a similar solar storm hitting Earth within the next 10 years, by extrapolating records of past solar storms from the 1960s to the present day. He concluded that there may be as much as a 12% chance of such an event occurring. [Wikipedia]
Computer file prophylaxis

- Portable hard drives backups
  - Regularly backup to one at home
  - Regularly backup to another at work
  - Thumb drives are very easy to lose
  - Use BitLocker or similar to make them secure
- Also, live backups to the Cloud
  - E.g., Sugarsync, Drive, Dropbox, Google Drive, OneDrive
- Do what you promised your REC about data protection & check GDPR compliant

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Towards a paperless doctorate

Modern screens are as easy to read as paper
(Kopper et al., 2016; Singer & Alexander, 2016)

Green is the new black. In fact, it has been the new black for a while, with environmentally responsible companies around the world looking for cost-effective, high-quality ways to become even more environmentally friendly.

The paper industry is the fifth largest consumer of energy in the world. This use of paper has a huge impact on a company’s carbon footprint - not just from the harvesting down of trees, but also on the fossil fuel power used for printing, and the chemicals involved, too. To produce just one tonne of paper, it is estimated that 2000

IT PAYS TO GO PAPERLESS
SAVE MORE THAN $1 MILLION IN EXPENSES

In fact, to make just one piece of the paper requires 10 times of

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CONCLUSIONS

- Secretaries have changed over the years
- “Technology is just a tool” - Bill Gates
- Computer power has increased 1 trillion fold since 1956
- Make the most of the very powerful tools at your disposal