



Experimental Laboratory Reports in Engineering: A template for level 4

(adapted from J. Donohue & J. Ingle, ISEE, UCL, 2018)

Most scientific reports use a similar structure designed to reflect a form of thinking, a particular logic in the applied sciences, known as the *scientific method*. This s TJETQBT0 Tc 0 Tw 12 0 0 12 12

5. Ensure intro flows and develops logically in an appropriate engineering style

METHODS (APPARATUS AND PROCEDURE) SECTIONS

1. Clearly labelled diagram (attributed if relevant) (a 2D diagram? are photos allowed?)

2. Description of the apparatus and how it works

3. Experimental procedure described

4. Ensure *methods* section flows and develops logically in an appropriate engineering style

RESULTS SECTION

1. Processed data, tabulated and labelled in this section (raw data is usually in the appendix and cross referenced in the text)

2. Explanation of how the processed results were obtained from raw data

3. Processed results presented in tables and figures

4. Ensure *results* section flows and develops logically in an appropriate engineering style

DISCUSSION SECTION

1. Brief discussion of problems in the experiment, and how they affect the analysed results and conclusions

2. Estimation and quantification of the uncertainties in the raw and analysed results

3. Qualitative and quantitative comparison of the observations with the theory

4. Exploration of any difference between theory and experiment (relation of the discrepancy to the experimental uncertainties and assumptions behind the theory)

5. Discussion of whether the research question or problem has been addressed.