How to *Efficiently* Write a Technical Report

**Step 1. Assign Page Counts**

a. Collect all guidance and evaluation criteria
   - Final Report Guidance
   - Evaluation Criteria
b. Estimate total pages
   - 1 page Executive Summary
   - 20 pages Main Body
   - Acknowledgements and References
   - Appendices including source code
c. Assign page counts in proportion to evaluation criteria
   - 25% → 5 pages
   - 10% → 2 pages
d. Team review before going forward

**Step 2. Page Map**

a. Layout pages and put headings on pages with the number of blank pages determined from the page count.
b. Cut out evaluation criteria and other guidance. Tape on appropriate page.
   - Underline or highlight key phrases. Use for subheadings/paragraphs.
   - Write subheadings as bulleted list spaced out on the page allocation.
c. Decide on “graphics with a target of a) popular science – 1 graphic per page, or b) formal science – 1 graphic for every 2 or 3 pages.
   - Graphics can be pictures, simulation results, *flowcharts*, tables, text boxes, equations, etc.
   - Consider using “cherry box” on Executive Summary page like the text box on the upper right corner of this page.
d. Team review before going forward. Review should focus on whether the page map answers the requirements and evaluation criteria.

**Step 3. Assign Graphics and Writing**

a. Match to team member skills
b. Usually should create graphics first
c. Target project work efforts towards filling in needed material.
d. Fill in just the space allocated.

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**Figure 1. First Part of Page Map for Technical Report**

<table>
<thead>
<tr>
<th>Cover Page</th>
<th>Table of Contents</th>
<th>Executive Summary</th>
<th>1. Introduction</th>
<th>1.2 Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>cover page spec from Guidelines</td>
<td>List of Figures spec from &quot;Writing the Final Report&quot;</td>
<td>1.1 Purpose pg 1</td>
<td>1.3 Background pg 2</td>
<td></td>
</tr>
<tr>
<td>2. Description 2.1 Scope 2.2 Materials pg 3</td>
<td>2.3 Methods Computational Science Process</td>
<td>2.3.1 Mathematical Model Equations pg 6</td>
<td>2.3.2 Computational Model Model</td>
<td></td>
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</tr>
</tbody>
</table>
e. Reviewers generally only absorb graphics captions and first lines of paragraphs
f. Usually should take your last paragraph (conclusion) and move to front
g. Adjust page counts when needed, but try to maintain proportion relative to evaluation criteria.
h. Always start sections at top of page even if some blank space is left.

Step 4. Review Periodically as a Team
a. Keep review constructive and try to find a place for all input (no wasted effort).
b. Material that does not fit might be put into an appendix.
c. Table of Contents, List of Figures, Indexes, Bibliography, and Acronym/Definition pages all add a professional touch and makes the reviewers job easier.

Step 5. Friendly Outside Review Team
a. Give report and evaluation criteria to a review team and ask for top ten comments.
b. Great role for parents or teachers.