



TECHNICAL REPORT WRITING FOR ENGINEERS

IN THE FIGURE

Dr Andrew Garrard, Senior University Teacher, Multidisciplinary Engineering Education, The University of Sheffield: It is said that a picture is worth a thousand words. In a technical report, a figure can be the quickest and easiest way to communicate information, which helps you keep your writing concise. From photographs and experimental diagrams to graphs and schematics, there are different types of figure that you can use to illustrate the point that you're trying to make. It is important to choose the most appropriate type of figure for the information you want to convey to make it easy for the reader to understand the information you are providing them.

At the start of the report, it may be appropriate to include a photo to characterise the background or context of the topics discussed and show the real environments that relate to the project. Or if the project produces anything, such as a designed part or a broken sample, a photo could be the best way to show what these look like. When taking photographs, take care to set up a clean shot. Try to put the object on a plain background in good lighting and specifically focus on what you want to show your reader. For example, if you wanted to show a fracture surface, you may not need to have the full sample in shot.

However, when using a figure to articulate a concept with graphics, such as detailing an experimental set up, a photo is rarely the right figure to use. Clearly labelled schematic diagrams are much better for conveying key points without the clutter of unnecessary detail. When used to describe an experimental set up, schematics pick out only the detail that is necessary for the reader to understand. The labels should be far enough away from the picture to not interrupt the content. The terms used in the labelling should directly relate to the terms used elsewhere in the document, such as in tables, equations, or in the text.

Whatever type of figure you are including in the report, make sure to be consistent with the style you use to present them. The layout, labelling, and sizing should remain the same throughout the report. High quality, clear images can really lift a report and give clarity to the project. Just make sure to choose the best type of image for the content you want to present.