

Conclusion and Poster

Conclusion

A sentence or two which answers the question. You have already provided the details in your discussion.

Your **conclusion** states whether your results support or contradict your original question:

- State whether your results support or contradict your question.
- If appropriate, state the relationship between the independent and dependent variable.

Scientific Poster

The scientific poster should be a summary of the investigation, just the bones and the highlights. It is not a full report, the logbook provides the details and gives flesh to the bones.

The poster should have the following sections:

- **Title:** Question under investigation is the title.
- **Introduction:** Explanation or reason for undertaking the investigation, including a clear aim, a hypothesis and/or prediction and relevant background physics concepts
- **Methodology:** Summary that outlines the methodology (procedure) used in the investigation and is authenticated by logbook entries. Identification and management of relevant risks, including the relevant health, safety and ethical guidelines followed in the investigation
- **Results:** Presentation of collected data/evidence in appropriate format to illustrate trends, patterns and/or relationships
- **Discussion:** Analysis and evaluation of primary data. Identification of outliers and their subsequent treatment. Identification of limitations in data and methods, and suggested improvements. Linking of results to relevant physics concepts
- **Conclusion:** Conclusion that provides a response to the question
- **References and acknowledgments:** Referencing and acknowledgment of all quotations and sourced content as they appear in the poster.

The poster can be done as an electronic poster using a template containing the categories listed above, with text entered or pasted into boxes.

Title of Physics Practical Investigation

Student's Name

Introduction

Explanation for undertaking the investigation, including a clear aim. (One sentence should be enough.)

Relevant background physics concepts. (Just definitions and equations should suffice.)

Methodology

Summary that outlines the methodology used in the investigation and is authenticated by logbook entries.

- Description of independent and dependent variables, including which are continuous,
- Equipment and measuring instruments,
- Sketch of equipment layout as well as a photo,
- Identification and management of relevant risks ...

Results

Presentation of collected data/evidence in appropriate format to illustrate trends, patterns and/or relationships.

- Selection of data showing number of repeated measurements and range of values,
- Sample calculation,
- Sample determination of uncertainty and error bars,
- Graphs with descriptions, at least 2, but less than 5,
- Analysis of graphs including lines of best fit, gradients and intercepts,
- Effect of uncertainties.

Conclusion

Provide a precise and detailed response to your question. Need only be a short paragraph.

Discussion

- Analysis and evaluation of primary data
- Identification of outliers and their subsequent treatment
- Identification of limitations in:
 - Data, both in the range of values and number of repeated measurements, and
 - Experimental method, and so
 - Suggested improvements and
 - Further aspects you would like to investigate,
- Linking of results to relevant physics concepts.

References and acknowledgements

Rarely needed in student physics investigations.

