

# The ib lab report format

Business



**ASSIGN  
BUSTER**

Introduction Amylase Is an enzyme that catalysts the hydrolysis of starch Into sugars. Amylase Is present in the saliva of humans and some other mammals, where it begins the chemical process of digestion. La.

Research question b. Variables Variables Control of the variables

Independent variable State your independent variable and the range, if applicable, and also the number of repeats How will you manipulate your variable? State the range of values If you have one. How will you measure your Independent variable? Dependent variable

State your dependent variable as directly measured. How will you measure the dependent variable? Controlled variables State all the For each controlled variables that could variable you have also influence your Identified, state how you results Will keep the variable either constant or under control Each controlled variable mentioned should be addressed in the procedure explaining how it was maintained in the experiment. 2.

Materials A listing of all materials used should be included here. Specific sizes of equipment, such as 100 ml graduated cylinder or 50 ml beaker, should be stated.

Solutions used ND their precise concentrations should also be listed. The model and manufacturer of any complex apparatus should be clearly stated. State the uncertainty of the instruments used.

The procedure should be in numbered steps, clear and easy to follow. A peer should be easily able to complete your procedure from this section. Include specific details about how you manipulated the independent variable. Also, if

not detailed in table above, include details on how to keep the controlled variables constant and how many times to repeat the procedure.

This section must provide for the collection of sufficient relevant data.

Relevant data means it pertains directly to the research question or the hypothesis. Explain if there are any calculations that need to be performed for the dependent variable. AAA. Picture or diagram of lab setup – If applicable, it is recommended that you include a picture of the setup that explains how everything was put together to begin measuring. This picture or diagram can be annotated to illustrate how the variables were specifically involved in the procedure.

. Safety issues Safety considerations are addressed including bib's animal experimentation policy, if applicable. (For example if you experimented with people). . Raw data Make a table to organize the data collected while carrying out the procedure.

The title of the table is descriptive. Units are clearly stated. The uncertainty of measurements is stated, usually in a column heading. The same level of precision (number of decimal places) is used for all recorded values. Do not split a data table between pages.

If absolutely necessary, due to large volumes of data, include title and complete column headings on the second page.

Include all the pertinent observations and qualitative data. 6. Data processing This section is an explanation of the manner you have chosen to process your raw ATA (for example calculating standard deviation or t-test).

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Justification should be given as to how the processing will allow the hypothesis or research question to be adequately fulfilled. Include a sample calculation and use a table for organizing your results.

Decimal places should be consistent throughout and consistent with the degree of uncertainty of the instrument.

7. Presentation of results If a graph is going to be used be certain it is properly done including a title that is self-explanatory and complete, axis labeling that includes units, uncertainties, etc. Make sure that the graph and axis are scaled appropriately. Error bars should be utilized on the graph if at all possible as they represent uncertainties and errors associated with the raw data.

The final results should reflect the correct number of significant figures. If applicable, add a trend line or a best fit line.

Make the use of space effective and use appropriate coloring or shading. State a conclusion which is based on a logical interpretation of the data obtained in the procedure. Mention patterns and trends with reference to graph/tables. This conclusion will either support or refute the hypothesis. Give Justification for your inclusion using graphed data or specific processed data.

Do not talk of “ proof” in this section.

Compare your results and conclusion to any known or accepted values from the scientific literature. This may help to establish validity of the results. Be certain to reference any literature that is quoted. 9.

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Evaluation Comment on the weakness of the study and how the quality of the data may have been affected by these weaknesses. Discuss procedure problems. Mention the precision and accuracy of the measurements. Do error bars or statistical analysis indicate valid, reliable data? Finally, address what improvements could be made based on the weaknesses just discussed.

Specifically mention modifications to the procedure which may produce more valid and reliable results. These modifications should be realistic and clearly stated.

Weaknesses and limitations Suggested Improvements Variability of data

Here you need to address how variable your data is and how this affects your results Systematic errors For each identified weakness or limitation discuss how it affects your results Errors in measurement The ones mentioned above are common, but take them out if they do not suit your investigation Make sure you add some more