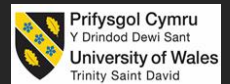




Raw Data –Gold or Dust! Thinking about and Writing Up your Research

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Research produces
a collection of raw
data... raw because
it is unprocessed,
not 'cooked' not yet
used to create
something



Any person can collect raw data –
doing something with it is the art!

Assumptions are good to propel you into the field but they
can also blind you to the evidence in front of your eyes.



Try and 'stand in the shoes' of the people who built the structure.

Empathy

Believing what they may have believed will open your eyes to new features of your data

Tips for working with raw data

- Play with your data – arrange it in different ways. Can you visually display it differently to what you have been doing?
- Think about your data – ask questions of it. E.G. 'If I was building this structure what would I do or why would I do that?'
- Focus on the bits of evidence that are your outriggers, the bits of data that do not fit into your thinking.
- Give yourself time.. (if possible).





When field work becomes research

- Investigation without publication and dissemination is not research.
- Investigation which only reports is not research.

To count as research, a project has to seek to make a contribution to knowledge (and perhaps practice and/or policy) in the field. To make this contribution it has to be published – written up.



HOWEVER - In order to understand your work any person will need the answer to four key questions .

These questions are :

What have you done?

Why have you done it?

How have you done it?

What did you find and why does it matter?



Until these questions are answered
the reader will struggle to make sense
of your research.

These FOUR key questions need to be addressed at the
beginning of your paper

WHAT

Introduction – the Aim of the paper

State your research question

WHY

Academic Rationale

**The evidence for your academic rationale comes from your
– the Literature Review**

HOW

Methodology

A brief outline, also include the focus on your research.

What you found

A brief pointer to what your research revealed.

The structure of your final research paper needs to have these headings

- Introduction
- Historical Discussion
- Literature Review
- Methodology
- Findings/Discussion
- Conclusion

Tip: Open a Word document and insert these headings. Then go to your research proposal and cut and paste the different sections under the correct headings. You will be amazed to find that a large part of your paper is now drafted with the main gaps being:

Findings and Discussion and Conclusion.



The Introduction

1. Introduction

Physical methods for the determination of age of stone structures (monuments, altars, temples, monoliths, buildings, cairns, field walls, mortars etc. [1]) almost always use material associated with the construction period, that may contain ¹⁴C datable material rather than material directly from the fabric of the construction. However, in many cases, appropriate organic debris is either not available, or the association with the archaeology is insecure. The direct dating of stone surfaces has been an ongoing subject of research since its first application [2,3], until today, and it is coined surface luminescence dating (SLD).

Sole archaeological dating relies on several grounds such as: • excavated finds from inside and around a building, and written sources; • thorough attribution of finds to correct stratigraphic order; • masonry typology and building technique, as well as, investigation of later repairs; • use of buildings by later inhabitants [4].

Though archaeological dating in Egypt relies on written sources, there are instances where the Dynastic chronologies do not satisfy the construction age of some monumental structures. Here, we have applied SLD to a selection of six Egyptian monuments for revisiting their dating in the light of current opinions (Fig. 1).

Liritzis, Ioannis, and Vafiadou, Asimina, 'Surface Luminescence Dating of Some Egyptian Monuments', *Journal of Cultural Heritage*, 16 (2015), 134-150.

RED: Academic rational. The Why

BLUE: The aim of the paper, the research question. The What.

Green: a short reference to the methodology and the trajectory of the paper. The How.

Remember the **FOUR** key questions that your introduction should address.



The Historical Background

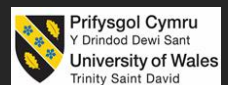
- The object of your research, a set of cairns, churches, temples or any other structure in the landscape needs to be located within a historical content. It is important that this is not a potted text book descriptive list of facts but is instead short, and focused with indications how this material is relevant to your research. This leads on to or follows your literature review.

Palmyra, Syria



The Literature Review

- Your literature review is where you cite and discuss the **previous work** in your subject field or in a similar field.
- In order for your work to be able to add to the body of academic understanding it must be linked to the work of other scholars.
- Otherwise it has no context and does not contribute to the overall 'picture' of the subject.



Methodology Section

The all important **HOW** you are doing the work

- Introduce your methods and use citations to show why these methods are suitable.
- Be aware of levels of uncertainty in your measurements.
- Bring in phenomenology – what the site felt like, looked like, how did it change for you over different visits.
- Visit the site as often as you can. Frequency enables you to observe things you had not notice before.



Field Work/Discussion

What did you find and why does it matter?

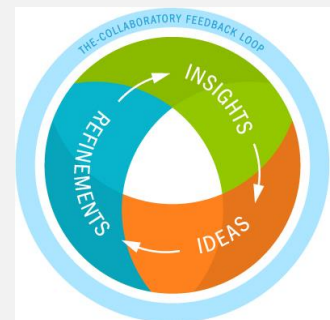
Your discussion of your findings in the field and the relating of your findings back to your academic argument.

Your research findings are meaningless unless they are related back to your research question and your academic rational through the lens of your literature review.

This turns reporting into researching.

Your paper is written in a feedback loop.

The findings can feedback into your literature review, which can feedback into your methodology, which can feedback into your discussion and themes which in turn feeds into your conclusion and eventually feeds back to your introduction.



Researcher vs Reporter

The researcher will do the job of a reporter – collect data – but then goes beyond reporting.

The researcher places their findings into the context of the given opinions in the field.

The researcher therefore adds to the conversation. The researcher finds new knowledge.

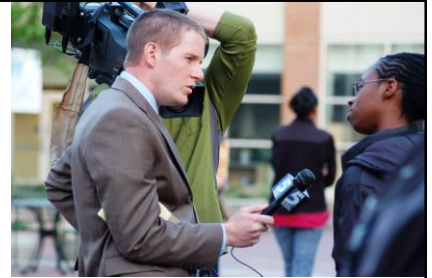
A reporter just presents the field findings.

Their job is to provide information so that others can analysis the meaning of the field findings.

Reporters can look like researchers as they can go out into the field, or ask people to come to them (in the studio) for interviews.

However they do not analyse, they just collect data.

You need to be a Researcher not a Reporter.



Field Work/Discussion

Clearly write up your results and discuss them. By **linking your findings back to your literature review you become the researcher.**

- Do your findings confirmed your expectations and those of other researchers in the field or have you found something different/new/contradictory/anomalous?

Layout Point: Use tables or graphs for quantitative data, label them clearly as **figure 1, 2 and 3** etc, and if needs be **refer to tables in your appendix for fuller data.** The appendix tables should also be labelled.

The appendix is not part of your word count.



Does the piece of the jigsaw that you have found add to the picture or does it change the picture and challenge how the other pieces have been put together?

What is the picture?

Conclusion

Your conclusion is the other bookend to your introduction. It needs to take the reader full circle and make them understand why your research is important.

Thus a conclusion **must**:

- Return to your research question.
- Briefly summarises your procedure and findings.
- Add your unique finding.

However, it is also your chance to give your own thoughts. The conclusion is the place where you can add the **final comments on the points** you have found in your research. You thus want to summarize your paper but additionally emphasis, in some way, the importance of your findings. Give your reader a new insight into the subject.

VIP Questions to ask yourself: Can you make sense of your findings? Can you offer some sort of explanation, however tentative? What are the professional/practical/political implications of your findings?



A person should be able to read your introduction and your conclusion and:

- a) Understand the aim of your paper.
- b) Have an overview of your methodology.
- c) Gain an idea of the themes that you developed.
- d) Understand what you found.

If they wish they can read your entire paper and see the detail of the evidence for your findings.

Check List

Tick these boxes to get the best marks for your paper but more importantly to write up a wonderful paper.

- ☐ Have I address the **What**, **Why** and **How** issues in my introduction?
- ☐ Have I justified my methodology by citing scholars who argue that my chosen methodology is valid for my intended research?
- ☐ Have I consider the work of other scholars in the area of my research? In exploring this have I avoid just reporting this literature but instead shown the **different opinions on the key themes** that I am going to explore in my research and thus are vital for my discussion?
- ☐ Have I written up my findings as a **researcher** and avoided just reporting facts?
- ☐ Have I presented my raw data in clear ways that support my discussion?
- ☐ Have I written a conclusion which summarises my work but also synthesis it together and shows why my work is important?