

# 10 Tips for PhD Research

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## Tip Number 3 – Research Process is Critical

Professional research is a systematic process and a student should not allow it to degenerate into an unstructured collection of thought bubbles. The likelihood of anything significant developing from an unsystematic approach is negligible and it undermines the structured approach to learning that a PhD is meant to engender.

In broad terms, the objective of a PhD program is for a research student to:

- Establish systematically a historical discovery timeline of the chosen field
- Identify the seminal researchers and publications in that field
- Identify the various schools of thought on future pathways for the field
- Based upon gaps or shortcomings identified by learned peers, select a hypothesis and an approach that learned peers would deem to be worthy of pursuit

It is particularly important to note here that the research student's objective is to provide a logical and methodical extension of the historical knowledge timeline – not to go out on a tangent with a piece of research which is a complete *non sequitur* to other work in the field. Eminent, senior researchers may be given the luxury of such an approach but it is unlikely to be well received from a research student.

Once a forward pathway is identified, the research student's role is to:

- Develop a methodology to test the hypothesis
- Design an experimentation process or instruments to aid in the testing of the hypothesis
- Tabulate results from the experimentation
- Reference the results against a gold standard or against the work of others
- Interpret the results and their significance against the broader body of work in the field
- Identify shortcomings and limitations in the research
- Based on the results interpretation and limitations/shortcomings, put forward a list of contributions of the work
- Identify logical/systematic extensions to the work that may address shortcomings or otherwise move the work forward.
- Submit the work for independent review by learned peers through publication, thesis submission or verbal defense.