

# 10 Tips for PhD Research

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## Tip Number 5 – Planning is Critical

A PhD program is not an open-ended forum for research. Universities have time limits on PhD programs, and exceeding those time limits can lead to serious financial and/or career penalties for students. Generally, students coming into PhD programs have no experience in self-managing time and performance over a lengthy period of several years. This is part of the learning process and it must be accompanied with self-discipline. The key to both the learning and the self-discipline is project management.

The most common mistake that students make in undertaking a PhD program is assuming that several years is a long time in the context of research – it is not. A number of aspects related to the program (e.g., journal publication, ethics application and approval, supervisor reviews of thesis chapters) are time consuming and need to be carefully planned.

It is important from the outset of the program to make a project management chart, either using a purpose-designed package or, preferably, simply an Excel spreadsheet. Divide time units into weeks. If a PhD program is 3 years in duration, there are 156 time units to be allocated. Every activity needs to be backward scheduled from the final due date. For example, if the thesis is due for submission in Week 156, then it may need to be submitted to supervisors for final review at Week 146, and so on. This means that final write-up may need to start at Week 126, and therefore all experiments need to have been tabulated and analyzed by Week 125, and so on.

At any point in time, a research student needs to undertake multiple activities – for example, at Week 15, a student may be conducting a literature review, designing experiments and developing an ethics application form.

Milestones and milestone dates need to be clearly identified early in the research program because there is little or no slack time available within a PhD program if it is being undertaken systematically. Importantly, because there are numerous unknowns at the beginning of a program, a research student needs to estimate initial milestone dates. This is a basic element of project planning. It is then critical that the milestone dates are viewed by the student as immovable – because they are backward scheduled from a finite end point. As each milestone date approaches, a student needs to assess whether or not it will be met – if there is a risk of a milestone date not being met then the student needs to increase the resources allocated (i.e., hours worked) to meet the date – and not shift the date except as an absolute last resort.

Refer to the project planning notes and sample spreadsheet available at <http://doctortee.net/GraduateResearch>.