

## RESEARCH MANAGEMENT PLANS: STRUCTURE AND FUNCTION

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**Abstract:** The significance of research management plans depends on who is looking at them. University administrators see them as important, if not vital documents, that demonstrate to the world at large that the university is well organised and is articulated with the desires of government and the needs of the community. This paper examines the structure and content of typical research management plans. The research done by higher degree students and some of the problems faced by off-campus students are addressed. Finally, the paper argues that unless research management plans are practically meaningful, administratively simple, and provide useful guides to action, they have a limited role in the development and maintenance of a research ethos, and in the facilitation of individual research initiatives.

### Universities and governments

There has long been a degree of tension between publicly-funded universities and the government of the day. Universities sit, often uncomfortably, between governments and the emerging professional work force. The publicly funded universities receive most of their operating grant from government and hence government expects to have some say in how the money is used. Universities however believe that they act in the long term public interest and should have a reasonable degree of autonomy to use the money as they see fit.

There are two fundamental views of the role of universities in national development. One view is that universities have major and direct role in economic growth and development and that their activities need to be carefully articulated with national economic goals. These goals are set by government and require the cooperation of the universities for their achievement. To assist the cooperative process universities are given enrolment targets across levels of study, types of discipline and types of student. Universities that adhere closely to these targets or quotas are regarded more highly than those who don't. This emphasis on the development of human capital is particularly apparent when a nation's economy is ailing. For those who believe that higher education is essentially an industry and that service industries can be planned in much the same way as manufacturing industries, economic rationalism seems to be a self-evident truth.

There is another view. Universities do accept that they have a significant role to play in national development. They know that they are a vital link in the preparation of a professional work force. They also believe that they can do this better without

the direct intervention of government. Despite some public cynicism universities are much more than degree factories. They play a major role in the cultural, aesthetic and moral life of a nation. Although university administrators seem to have embraced economic rationalism with some enthusiasm it is still the case that universities would prefer to emphasise the development of human potential rather than human capital. This is probably true even for the technological universities. The human potential perspective emphasises the value of having a well educated population in which individuals and groups have the intellectual skills and flexibility required to create and develop new goods and services and to take advantage of short term 'windows of opportunity'. In practice this is not an either or argument because both perspectives co-exist. Universities are not mono-cultural on any dimension and indeed at least one commentator has likened them to a confederation of warring factions united only

by their common objections to parking arrangements.

The statement

The more direct intervention of an economic rationalist government has increased the importance of forms of accountability approved by government. This has in turn given new status to the statement. There are many kinds of statement in a typical university. For example, all universities now have a formal mission statement and each university has to articulate its structure and function with its mission statement. It is believed that this articulation helps distinguish one university from another and provides a rational basis for assessing its efficiency and effectiveness. These mission statements are written with an eye to satisfying government but they are not altogether exercises in cynicism because the process of writing them sharpens one's thinking about the purposes of the university. Such statements are usually approved by Academic Board and certainly by Council. Regardless of how well written the mission statement is, its effect on academic and administrative staff is quite another matter. It may well be that a majority of staff do not know where to find the mission statement, and do not know what it contains. This was true of my own institution even when it was a very small organization. It is even more likely that the mission statement has a marginal effect on what academic staff actually do. They usually have some degree of allegiance or loyalty to the employing university but this is matched, if not exceeded, by their commitment to their respective disciplines.

The research management plan

The mission statement will invariably contain expressions of the university's aspirations of excellence in teaching and research

and will probably mention service to various professional and geographic communities. These are worthwhile sentiments and it is not my intention to diminish them in any way. The next step in the process is the preparation of planning statements to show how these aspirations might be realised and evaluated. It is in this process that the research management plan (RMP) is generated. RMPs address the policies and practices for the conduct of staff and student research. Such plans have to resolve or reconcile a number of competing factors. They have to balance the inspiration that produces new research topics, new ways of proceeding and novel solutions against the fairly systematic perspiration that is required for the day to day conduct of research. Whilst a university can create an environment that favours inspiration it cannot legislate for it. The development of a research plan can be done in several ways. Senior academic officers can draft research plans that set out an appropriate public image but this is not a particularly good way to go about the task. It can't be solely driven by the active researchers either, but they need to be centrally involved in the process. Apart from their influence on the content their involvement means that more people really know and understand what the RMP is for and how it is to be used. It also increases the chance that people will have some degree of commitment to it. Whatever process is used it needs to be managed carefully and sensitively so that research staff are not confronted with they could easily regard as unnecessary and obstructive bureaucratic 'bumpf' designed to impede rather than to facilitate high quality research.

Most universities will make some provision for individual, curiosity-driven research and research on the university itself. This has to be balanced against the teaching program on the one hand and against the reality of tagged funding from industry and government. If it asserts that all academic staff to conduct

research it has to have some way of funding at least a minimum level of research in each of its departments. These problems can be managed in a number of ways - the peaks and plateaus model is common. In this model non-priority areas are not actively discouraged and preference is given to those areas of research that the university identifies as strategically important. This procedure can be criticised because it can have a demoralising effect on staff and it probably means that research funding will continue to go to areas that have the least difficulty attracting support.

The university's RMP has some of the characteristics of the mission statement. It will normally make some assertions about excellence, orientation toward real-world problems, service to

industry, the encouragement of young researchers and about the structures and processes by which these goals are to be pursued and (sometimes) achieved. It will distinguish between pure or curiosity-driven research and applied or problem-driven research and it will indicate priority areas for the latter. These are likely to reflect government thinking and policy and hence assist the articulation between university and government and to increase the chances of attracting research funding. The plan needs to be written so that it shows that the university is capable of attracting other research monies and is not solely dependant on government grants. It will probably include some indicators of research performance and these might include measures such as:

critical mass (the number of active researchers in an area)

density of active researchers in a department

total number of publications

total number of higher degrees by research

total number of ARC and NH&MRC grants\*

\* These indicators have been taken with modifications from the Interim Research Management Plan of Deakin university (September, 1991).

There is often some argument about such indicators and whether they can be equitably applied to all disciplines and how they might be interpreted for staff who have previously emphasised teaching more than research. On balance they seem to be reasonable indicators. In the final analysis there are no pure and unequivocal indices and one has to accept that they will be matters of judgment. It is however important that the processes underlying the indicators be open to interpretation in non-standard cases.

The researchers

Just as the mission statement will have several levels (University, Faculty, School or Department) so the RMP will be mirrored at several levels. Faculty-level research plans identify key research areas and key researchers and will distinguish between Faculty-level seed grants for new research areas, university administered ARC Small Grant research, and ARC large grant research. These grants form a status hierarchy desired by the university and the faculties. The high status ARC Large Grants are very competitive and proposals require extensive preparation. The success rate is very low and one must at least consider the cost-benefit of the process. Such is our drive for recognition that there is little doubt that we will go on competing. The differential status accorded to, or claimed by, those who are mainly engaged in research activity and those who are mainly involved in teaching activity, is accompanied by additional distinctions based on the type of research funding

that one has.

Departmental level plans refine the process further and have to balance teaching, research and consultancy, and administration. With the rise of performance appraisal (by whatever name) the personal research plan has emerged. These are not conceptually new in any way but they are becoming a more formal link in the bureaucratic chain of accountability. Each of these steps is inherently rational but collectively they are a considerable administrative and intellectual burden. The process absorbs a good deal of skilled labour and, in the case of unsuccessful applications, there is minimal spin-off from the process. There is little value in failed applications! It is not even clear that the process heightens awareness of the higher order research plans. It might be important that all academic staff at least know of the university's research priorities but we can't really expect everybody to support them with equal commitment.

The research plan can be a well written set of aspirations. A good research plan will be more than this. It will be a practical plan of action that actually guides the activities of staff and students. One of the major requirements of a faculty research management plan is that set some longer term strategic parameters. One of these concerns the degree to which research topics are selected and the ways in which graduate students are attached to them. This is partly a function of size although there are elements of efficiency and effectiveness involved. In the case of higher degree students we can, for example, make students responsible for the selection and development of research topics. This procedure avoids some of the conflict that can arise if attempts are made to limit the research foci. It also gives the student a high degree of responsibility and a reasonable degree of freedom to select topics of personal interest and relevance. In practice students seem to find this a very difficult task. It is also very demanding of staff time and energy. The growth in off-campus student enrolments has exacerbated these demands. Here there is a distinct advantage in having an agreed RMP.

If a group can organise its research program so that it concentrates on a relatively small number of topics it can then provide the student with a limited list of specific problems from which the student can choose. There are several advantages with this approach. It focuses the group's efforts, and this is important when the group is relatively small. It removes much, but not all, of the student's difficulty in selecting suitable problems. It draws on the experience of staff who collectively

are much more likely to know how to specify and contain a research problem so that it has a chance of being completed in the minimum time. It reduces the demand for a diversity of library resources and it contributes to the growth of staff and student expertise. In fact, this method of organising research is very common in many universities. It demands very much however on the group's willingness to work together and to prioritise its research program. This is often easier said than done!

The research plan needs also to address arrangements for student supervision. Whilst it may be more efficient to allocate each research student a supervisor it may be more effective to use supervisory teams of two or three people. Even when the research paper is a relatively minor component of an award the benefits to staff and students of having the combined experience of two or more people outweighs the relatively increase in administrative complexity.

#### Off-campus research students

Although communication technology is constantly improving, off-campus research students still face many difficulties. They often experience feelings of isolation and uncertainty about what is required and how to proceed. Even the most competent of off-campus students value contextual knowledge such as whether:

- their particular project is part of a larger whole
- other students are doing something similar
- X and Y are common problems
- X is a big problem or a little problem
- if there are other students in their suburb or town
- what degree of assistance they can expect from their supervisor/s
- and how the system 'works'.

For the on-campus students many of the issues are dealt with informally and are just part of one's daily life in the department. For the off-campus student these sorts of concerns must be actively addressed and managed and may (usually) require more of the supervisor's time than the on-campus student. It is easy to underestimate the feelings of isolation and inadequacy experienced by off-campus students when it takes days or even weeks to find out how to do what often turns out to be a simple task. It is not just a matter of intellectual isolation. The tyranny of distance is alive well! The problems of networking with the university and with other students can still be a major

impediment to the student's engagement in the research task.

Some, if not many, off-campus students will have had little or no research experience in their undergraduate program. This leads to the expectation or unconscious assumption that research is an extension of coursework. This reactive conceptual framework is not appropriate for research and it requires a major mind shift for the student to accept responsibility for research-driven learning. Even preliminary matters such as searching electronic data bases present problems of access, technical knowledge and turnaround time. Given keywords and phrases many university libraries will do literature searches for the off-campus student. Whilst this is an invaluable service it is not a substitute for direct experience.

The RMP also needs to address the general question of individual and group research. This is another matter on which the opinions of academic staff are divergent enough to warrant some degree of codification or shared understandings. There are some drawbacks to group research but, particularly for the Masters degree, the direct value for students and the synergy that can come from like-minded researchers working together indicate that the benefits outweigh the disadvantages.

#### Ethics committees

The conduct of research in universities is not an unfettered search for understanding and truth. Regardless of the academic merit of a research proposal it must also meet certain ethical requirements. Universities have Ethics Committees to examine and approve research proposals. The criteria for approval tend to be rather similar and do not impinge very directly on the research management plan. The procedures for submission and approval however are an important dimension because they can delay the start of the project and at worst they can have a profound effect on the topics selected for research. Academic staff find the process difficult enough; it is much worse for students. I think that RMPs need to consider this question and to incorporate procedures that are reasonably user-friendly and that can be

completed in minimum time. This requirement suggests that there needs to be specific consideration of the type of research that Education students actually do and a careful analysis of what information is actually required for the approvals process. It also suggests that some form of delegation is necessary so that Schools and Departments can, in a timely way, approve applications for certain categories of research. This may be happening in other universities but I suspect that ethics approval processes are generally rather ponderous.



### Training of research supervisors

We sometimes act as if the supervision of higher degree research students is entirely an intellectual process. It is much more than this. Intellectual excellence is, or ought to be, a necessary condition for the selection of a supervisor but it is not a sufficient condition. Many another skills and understandings are required. Some supervisors seem to intuit these skills and understandings, other develop them through experience. These routes can't be supplanted by they can in some cases be supplemented by relevant preparation and development programs. We can all agree that this is a good thing to do. If it is recognised in the RMP it is more likely to happen.

### Conclusion

I am not a particular advocate of research management plans especially in they take on a life of their own and are used as a bludgeon. They are however, a fact of academic life and our task is to make the best of them. The preparation of research plans is an expensive and laborious activity. If we are to obtain a positive cost-benefit from the process the outcomes need to be practically meaningful, administratively simple, useful guides to action. RMPs are not recipes and they have little value if they serve only to codify and control. They need to motivate and facilitate. They are useful to the extent that they increase the research quantum and productivity but the notion that control is progress is an illusion. Some of the process problems of higher degree research students are similar to those of academic staff, but these students have particular problems associated with their student status. Off-campus research students have additional problems that can often be addressed with some goodwill but some of the problems can be minimised or avoided if the they are recognised in the faculty research management plan. We all want the research process to be efficient and effective but no amount of regulation and administration can generate the inspiration and creativity that are sometimes if not always needed for excellent research.

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20 October 1993.