Developing research capacity: the second step

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Keywords
Research, Development, Leadership, Networking

Abstract
This article suggests some strategies for the second stage of building research capacity. Research planning becomes a more central activity in this phase of development. Key issues for such planning are ownership, objectives, outcomes and organisation. Successful development depends both on effective team working and individual achievements. Research networking and quality are at the centre of individual strategies in this second phase of development. A model which identifies the different stages of research networking is offered; this may assist in mapping processes of individual members of a team.

Introduction
A number of articles have been written on the first stage of building research capacity over the past few years (Rowley 1998a, 1998b; Rowley and Slack, 1998). Interest in establishing a research profile within a department or university has been fuelled in the UK by the change in the status of the polytechnics to new universities, coupled with the opportunity to acquire research funding through a successful submission in the UK research assessment exercise. Similar developments are evident in other countries such as South Africa and Australia (e.g. Fransman and Rowley, 1999). In such institutions research and scholarship activities need to be integrated into the activities associated with the delivery of their core mission in the area of teaching. The focus of these articles has been primarily on the first stage of research capacity development, where the emphasis has to be on personal development, mutual support and sharing, and the initial stages of the creation of research teams and a research or continuous learning culture.

The second stage of research capacity building, as described in this article, is concerned with integration into the wider academic community. Since the activities that are necessary to achieve a presence in this wider community are likely to demand specifically identified resources, in order to support, for example, research staff and students, study visits, and conference attendance, the emphasis must shift from individual development strategies to a research strategy which embraces objectives for a research group or academic department. Senior managers in higher education institutions will expect increasingly significant outcomes, as their resource commitment increases. Research strategies are increasingly being requested from departments, schools and faculties as part of the institution’s normal strategic planning cycle. It is obvious that such strategy documents will not be worth the paper on which they are written, unless they take into account the resources that are available for their achievement.

One key resource is staff expertise. Once some staff have developed their expertise in research, through, for example, PhD completion, publication and presentation of papers at conferences, a strategic plan for the group or department will facilitate resource acquisition and management and the cultivation of a research culture. This article explores the process associated with the development of a strategic plan, and also identifies some strategies for individual development that are important in this next phase of research capacity building. As with any organisational learning, individual and group learning need to proceed in tandem. Research leaders have responsibility for establishing a sense of direction and for the facilitation of opportunities to support the individual learning of others. The author writes from a perspective of business and management and the social sciences. The strategies and models proposed in this article should have some general applicability across all disciplines, but scholars and researchers in the arts and humanities, and science and technology may wish to evaluate the applicability of the proposals in this article to their disciplines.

Strategic planning
Developing a strategic plan for research in most academic environments requires a different approach from the development of a strategic plan for IT infrastructure development, or even course and curriculum development. In these instances, while the issue of staff motivation remains relevant, managers, in general, have tighter control over the allocation and utilisation of resources than in a research planning context. Success at a national or international level in research terms, especially in an institution with little or no previous reputation for achievement in research, requires a high level of individual commitment and focus. We identify four key facets to successful research planning as shown in Figure 1: ownership, objectives, outcomes and organisation.
Ownership

Resources to support research activities, while useful, are not sufficient. Any research plan needs to be owned by those who will contribute to its achievement. A participative planning and monitoring process in which group members jointly develop, and monitor, their progress towards achieving the objectives of a research plan is essential. The plan, typically, might be updated on an annual basis, and meetings to monitor progress towards research objectives and outcomes might be held two or three times a year, depending on the size and complexity of research activity. Ownership can only be achieved if all researchers (from research students to professors) have involvement in the planning process, and, conversely, if all participants in the planning process are active researchers.

Objectives

A research group, and, at a higher level, a faculty or institution, needs to develop a sense of vision in relation to its research activity. A strategic plan needs to include both the activities to be completed during, say, the next year, but also a sense of what will have been achieved in five years, or ten years. This sense of direction needs to be embodied in aims and objectives. Typically these objectives will identify:

- The general purpose of research or scholarship in this context, and the relationship of research to other activities such as teaching, reputation building, individual development, and consultancy. Different strategies need to be adopted to serve different purposes. For instance, great visibility can be achieved through the publication of a textbook, but this will not make a significant contribution to RAE ratings.
- The subject focus for the research group. Foci should be permissive, rather than restrictive, but the work of a team must have some coherence, and not simply be the culmination of individual efforts. Foci should emerge from the groups strengths, and must have a long term validity. Preferably, the subject foci should also align with curriculum and consultancy specialisations.
- The level of achievement that is anticipated in relation to research. This may range from participation in the national arena to acknowledged excellence in international networks. The focus may be associated with recognition in professional and business networks, or academic networks, or both.

In general, performance indicators which can be used to measure progress should be identified for each objective. As with all planning processes, some variations between objectives, as projected and as achieved, is to be expected. This will arise from:

- Unanticipated opportunities for participation in, or funding for, a new research project or a new networking activity.
- Changes in the staffing base. Clearly efforts must be made to establish and retain “stars”, but it is also important to motivate developing researchers, many of whom are likely to be on fixed term contracts. Managing the staff base is a key aspect of research leadership (this issue is developed further below under organisation).

Every attempt should be made to frame objectives which are resilient and are likely to provide a firm basis for the next iteration of the research plan.

Outcomes

Outcomes might typically be specified on a year by year basis; they are the building blocks that are necessary to achieve research objectives. Outcomes are likely to be specified with reference to outcomes of national research assessment and evaluation exercises, such as the UK research assessment exercise, but it is important not to allow such criteria to set agendas. Outcomes must match objectives, and be appropriate for the institutional context. Outcomes that are easy to measure are particularly useful, but not everything is susceptible to measurement!

Typically outcomes might relate to:

- Presentations, given by staff at other institutions, seminars and conferences.
- Conferences, seminars and forums, held in the institution, with contributions from both external and internal speakers.
- National and international links – including visits made by staff to other institutions, and visitors, including research fellows and other associates.
Postgraduate student activities, registrations and completions.

Publication, in refereed and non-refereed journals, and conference proceedings, books and other formats.

Editorships of journals and other refereed journal activities, such as reviewing and editorial board membership.

Income generation from funded research and knowledge building consultancy.

Income generation is central to building further research capacity. Income, from business, research councils, other research funding bodies, and other activities, is usually intended to support the completion of a specific project. But, in completing that project, research teams will undergo learning, locate opportunities for dissemination (heeding, of course, any confidentiality requirements) and build reputations and networks. These activities form the basis for further research success.

The achievement levels expected in relation to each of the categories of output specified above need to be measured in terms of both quality and quantity. For example, while early in a researcher’s career, publication in any journal is a worthwhile experience, established researchers will seek to build their reputation through publication and dissemination arenas that are regarded as prestigious.

Organisation, leadership, and management

Success with the development of research activities will lead to a level of activity that needs management and resources. Wolf (1990) argues that strong, creative leadership is central in attaining academic excellence. Indeed, the future of academic institutions depends on the development of effective leadership skills at all levels in the organization (Seagren et al., 1993). A senior academic will need to take on the role of research manager and leader; this may be a head of department, a head of research centre, or an associate dean. This individual needs to take responsibility for financial management, human resources management, and profile and reputation enhancement. For a large active research team this is a full time role. Other key organisational issues relate to:

- Financial management in a context in which most income is on a project related basis. Establishing a continuing income stream, and some stability of relationships with research councils and other organisations from which research funding is available.

- The creation of a research infrastructure, which includes systems and support staff, and possibly research staff who have a sense of long term attachment and commitment to the research centre.

- The creation of an information infrastructure, including avenues for access to external resources, and the management of the research team’s knowledge bases.

- Managing a mixed group of research staff and academics who also have significant teaching commitments. Selecting, recruiting, inducting and retaining research staff on fixed term contracts, and taking initiatives in relation to the career progression of research staff.

- Contributing to the creation a research culture in which research comes to be viewed as an integral component of the activities of the university, and not just a “bolt on” which can be discarded when times get tough.

- Managing the interface and balance between research and other activities in the institution, and assisting staff with priorities.

Strategies for individual development for research capacity building

A research team will embrace people who are at different stages of their development as researchers. Table I characterises development stages, in terms that relate to networking. Another way of signifying the maturity of a researcher might relate to their career progression and the post that they hold. A research team may include: research students, research assistant, research fellows, lecturers, senior lecturers, readers, professors, and probably, secretarial, administrative and technical support staff. Each will have their own personal development agendas and career aspirations. Each will have a unique contribution to make to a research team. Two key issues that relate to the development of all individuals in a research team are: research networking, and quality.

Research networking

Networking within the academic community is important for a number of reasons. These include:

- being aware of opportunities for collaboration or research funding;

- being aware of the contributions that others are currently making to the subject area, so that your work builds on this other work, rather than replicates it;


establishing an identity and reputation among colleagues, which may be important in any research proposal refereeing, or article refereeing processes that are not conducted blind or anonymously.

While appropriate leadership and management can encourage and facilitate networking, networking is essentially an individual process; it is concerned with the creation of individual relationships. Table I summarises the stages in networking. Research activities and publications are at the core, but networking will also arise from, and lead to, editorial board membership, refereeing, PhD external examinerships and national and international travel. The stages in Table I are intended to characterise a possible development path. No two development paths are identical, and some researchers may miss one or more stages, or experience a mixture of the elements within the stages. A research team needs to identify the stages of development of each of its members, and to take this into account when setting realistic individual targets.

Quality

Quality in relation to research has two dimensions: quality of the actual research itself, and the validation of quality (kite-marking) through publication in appropriate journals or presentation at conferences. There are a number of factors that determine the quality of research:

• the significance of the research outcomes within the context of its contribution to knowledge;
• the rigor of the research design, data collection and analysis;
• conceptual frameworks and perspectives;
• scale of research and resources directed to research; and
• the researcher’s experience.

A research team needs to identify the publications and conferences through which it wishes to see its work disseminated. Often work can be presented at a general conference (such as a general management conference) or at a topic based conference (such as a conference on e-commerce). A similar dilemma applies in respect to journal publication. The research team needs to identify the most prestigious avenues for dissemination. The choice of journal for submission is crucial. Submission to a journal which rejects an article may lead to several months delay, such that any subsequent submission to an alternative journal may run the risk of the work being rejected on the basis that it is dated. On the other hand, submission to another journal might not offer the acknowledgment and exposure that the researcher seeks. A rough guide to the significance of a journal is its citation ranking; another measure, but one which might be in conflict with the citation ranking, are the sales figures (in terms of number of subscriptions).

Some new researchers will seek to achieve publication in the most prestigious journals early in their academic careers; for others it may be more appropriate to start with publication in “mid-range” refereed journals and to continue to develop the quality of their research and writing before seeking publication in the top journals. Subject field, and the process by which they have arrived at engagement in research and scholarship, are factors that decide the most appropriate approach. Ultimately, however, all researchers will wish to have their work published in refereed journals with good international reputations, and disseminated at important conferences.

Conclusion

The more successful departments and research groups in the new universities in the UK have started to establish a research profile and culture. This article suggests
some strategies for the second stage of building research capacity. Research planning becomes a more central activity in this phase of development. Key issues for such planning are ownership, objectives, outcomes and organisation. Successful development depends both on effective team working and individual achievements. Research networking and quality are at the centre of individual strategies in this second phase of development. A model which identifies the different stages of research networking is offered; this may assist in mapping progress and establishing objectives of individual members of a team.

References


