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DEVELOPING PROJECTS TO ASSESS RESEARCH IMPACT

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Introduction

This was the fourth in a series of seminars organised by the Research Unit for Research Utilisation (RURU), a member of the ESRC's Network for Evidence-Based Policy and Practice. The seminar brought together over 30 individuals from a wide range of fields with an interest in and experience of the impact of social research on public policy and public service delivery. The organisers would like formally to thank all those who attended for their helpful contributions and active participation throughout the seminar.

The overall aim of the seminar was to explore how the methodological challenges of studying research impact might be tackled. It considered these issues in relation to four main projects aimed at assessing research use and impact. The seminar was designed to be highly participative and much of the time was spent in small project-related groups, interspersed with plenary sessions.

Day One: Introductory session

The introductory presentation by Huw Davies and Sandra Nutley explained how the seminar aimed to build on the third seminar in the series, which had identified five key areas of concern around assessing research impact¹:

- Defining research impact
- Tracing the processes through which research has an impact
- Measuring the impact of research
- Designing research and development with impact in mind
- Whether trying to assess research impact is worth the effort.

The plan for the fourth seminar was to develop further understanding around these concerns by focusing attention on the methodological challenges posed by four potential projects suggested by participants prior to the seminar. The following participants introduced their interests in four topic areas:

1. **Evaluating the impact of centres that aim to enhance research impact.** Gill Hubbard from the *Care Care Research Centre* (University of Stirling) and Celia Atherton from *Research in Practice*.
2. **Examining research use in organisations.** Sarah Morton from the *Centre for Research on Families and Relationship* (University of Edinburgh).
3. **Assessing the effectiveness of interventions to increase research use.** Jo Rycroft-Malone from the *Royal College of Nursing*.
4. **Assessing the impact of systematic reviews.** Annette Boaz from the *ESRC UK Centre for Evidence-Based Policy and Practice* (Queen Mary, University of London).

¹ Final Report of the RURU Seminar, 15-16 JANUARY 2004 Assessing Research Impact, Walter et al (2004), <http://www.st-andrews.ac.uk/%7Eruru/Seminar%20report%20170204%20final.pdf>

Prior to the first small group discussion of these projects, Isabel Walter presented a framework for thinking through the methodological challenges that need to be addressed in developing projects to assess research impact and use. The framework linked six key questions:

- **WHY** assess the use of research?
This question underpins all the questions that follow: in part because different projects, with different aims, will require different methodological solutions; but also because asking why a project to study research impact is being undertaken means identifying the key stakeholders in the project and the roles they may play in shaping the project's terms.
- **WHAT** do we mean by research "use"?
Defining what is meant by the "use" of research is crucial. Some studies have identified typologies of research use, such as instrumental, or direct, research use; conceptual research use; and strategic research use. Other approaches have delineated different stages of research use. The idea of a research use continuum, that ranges from simply raising awareness of research findings, through developing knowledge and understanding and changing perceptions, to actual changes in policy and practice, effectively melds these two approaches. Crucially, such a continuum may represent a cyclical, iterative process, rather than a straightforwardly linear one.
- **HOW** can research use be measured?
A key issue is whether a study is primarily outcomes-focused, or is concerned with examining the processes through which research gets used. Models of process are however useful to underpin any study of research use. Another key issue is the study's focus: research use studies may examine how research is used by particular groups or individuals, or how a specific policy or practice has been shaped by research; or they may focus on tracing the influence a particular piece or programme of research has had.
- **WHEN** should research use be assessed?
Research impact takes time. Formative as well as summative assessments may be useful to help trace changes in impact. The extent to which research impact is sustained over time also needs to be considered.
- **WHERE** is research being used?
This is partly a question about where to draw project boundaries. For example, in developing a study of the influence of a particular programme of research, the question of where to look for impact is crucial. Asking "where" also highlights the importance of considering context when developing studies of research use. Evidence suggests that research use is a contingent process that is heavily dependent on the context in which such use takes place.
- **WHO** are the users of research?
Most studies have focused on how individuals use research, but research use can take place both organisationally and at the system level as well. This raises questions about how studies can access more hidden forms of research use, where such use resides in systems or in individuals' "tacit" knowledge.

Day One and Day Two: Small group discussions of projects

Participants met in small groups on Day 1 to discuss the key methodological issues faced in their particular project area, and on Day 2 to discuss tackling these challenges and taking things forward. A combined summary of these discussions, for each of the four project areas, is provided below.

1. Key issues arising from the discussion group on assessing the impact of centres that aim to enhance the impact of research

- The difficulties of evaluating the impact of research impact centres in the absence of a control group or environment. The work of such centres necessarily "contaminates" their environments. Without controls, it is difficult to address the question of additionality - what would have happened in the absence of such centres. However, it may be possible to make comparisons with other countries within the UK, or with similar centres aiming to have an impact in different fields or on different policy or practitioner groups.
- How should research "impact" or ideas of "success" be defined when there are multiple stakeholders - those working in research impact centres; the users of such centres; the funders of such centres; and service users themselves? Research impact measures will depend on how the process of research use is both conceptualised and operationalised. Is research "impact" even the right term, or should terms such as "influence" or "contribution" be used?
- Developing appropriate measures and forms of measurement for assessing impact. Hard, statistical output measures are more readily obtained and favoured by funders. Softer measures, such as changes in learning, are harder to assess and funders' mindsets may be less ready to accept their value. Such measures may however be important to the mission of research impact centres. Further, it is relatively easy to assess what such centres do; and much harder to assess what impact their actions have had. Different kinds of measure may therefore be appropriate for different needs and purposes. Tracing impacts on ultimate outcomes for service users is difficult; proxy measures need to be identified. It might be helpful to "build in" appropriate measures to centres' ways of working from the start, where possible.
- How to assess whether the impact of such centres amounts to more than the sum of their parts. It may be possible to evaluate the individual projects such centres undertake, but it is more difficult to assess the wider impact of a centre itself. Assessment of individual projects may be a way forward initially; over time centres will build a reputation that can be studied at a later stage.
- Issues of timing are crucial. Research impact takes time but stakeholders may demand to see results within short timescales. Formative as well as summative assessments might be useful. Another way forward is to examine the process of change, and at the same time to take "snapshots" along this change continuum to provide evidence of change itself.

- The importance of considering and taking into account the context in which research impact centres are operating. Use of research is predicated on context and may only have a small influence on policy, practice and outcomes. Any assessments of research impact centres need to be able to explore other factors affecting change in the field that may present barriers or enablers. The complex of interactions within the context may provide a starting-point for unearthing the contribution research impact centres have.

2. Key issues arising from the discussion group on examining research use in organisations

Discussions focused on methods for examining how organisations access and use research, with a view to improving the use of research at the organisational level. Four options were considered as ways of tackling the methodological challenges posed by such a project:

- Take a change in the organisation(s) of interest and analyse retrospectively the contribution of research to that, possibly focusing on the research emanating from one particular research group (such as the Centre for Research on Families and Relationships). A case study methodology, based on documentary analysis and interviews with key people was recommended, although it was acknowledged that this is a labour-intensive method. The problems associated with trying to draw out general lessons from single case studies were also discussed. The possibility of conducting and combining the findings from several case studies was raised but the challenge of producing cross-case syntheses was also acknowledged.
- Track the access and use of a particular piece of research within an organisation, or across a number of organisations, considering both positive and negative impacts. The example of trying to track the impact of a research dissemination event was discussed. This might initially follow up the people who attended the ‘event’, asking them about whether they had subsequently used the research in any way. The evaluation might also consider the extent to which knowledge of the research is disseminated any further within the organisations of those who attended the dissemination event. Furthermore, one could try to track adoption of the research findings, where these contained clear recommendations for change. The issue of when to conduct such follow-up studies was raised and the pros and cons of 6, 12 and 24 months intervals were discussed. Finally, it was acknowledged that this approach to assessing research use is highly dependent on self-report data, which may lead to an over-estimation of the extent of research use. It also means it is likely to be difficult to trace research use in situations where research results are used unknowingly and without attribution.
- Examine people’s perceptions of the extent of research access and use within their own organisations. This approach relies on people’s perceptions, with all the attendant limitations of this. Nevertheless, it was thought that it might reveal interesting and useful insights. An initial, broad survey of people in a particular target group of organisations was suggested, followed by a more detailed study of particular groups. In operationalising such a survey approach, one of the key issues identified was how to define research use for the purposes of the survey.

- A prospective study of research use in organisations. There was only time for a brief discussion of this option, which could either involve real-time, non-participant observations of, say, a policy-making process, or an action-research project. In the latter, the researcher(s) would work with an organisation to increase its access and use of research and, in parallel with this, monitor and evaluate the impact of their actions. The summary of the discussions of Project Group 1 (above) has already alluded to the many challenges posed by such action-research.

3. Key issues arising from the discussion group on assessing the effectiveness of interventions to increase research impact

The group discussed a project being developed by Jo Rycroft-Malone, which aims to assess the effectiveness of different strategies for implementing evidence-based guidance on peri-operative fasting. A multi-disciplinary group (based on a systematic review) developed the guidance in question. It relates to all disciplines, not just nursing, and has multiple recommendations.

The key methodological challenges identified in advance, and used as a rough framework for discussions, included:

- How do we decide the ‘dose’ of the various interventions to be evaluated?
- How long should the implementation/ intervention phase be?
- In relation to ‘instrumental use’, should we be measuring the extent of adherence to guideline recommendations and/ or patient outcomes?
- What is the best way of measuring conceptual use of research evidence?
- How do you disentangle effects within multi-faceted interventions?
- Where and when does implementation end and sustainability begin?

In the proposed project, the researchers were responsible for deciding which implementation strategies should be tried and assessed. Four particular implementation interventions were identified as possibilities:

- Dissemination only (but at what level within the organisation(s)?)
- A web-based educational programme/package for practitioners which would be interactive and focus on the guideline itself
- A Plan, Do, Study, Act project around implementation of the guideline
- A facilitated intervention with a contextual diagnostic analysis, possibly leading to the development of a local consensus guideline.

The group discussed whether the project should try to evaluate all four strategies or just one. If the decision is to attempt the former, as was the group’s preference, then a further issue is whether to introduce different interventions in different sites or whether to try all interventions in different parts of the same site. It was recognised that whichever route was chosen, a detailed research protocol would be needed to manage such a multi-faceted project.

The context of the sites included in the study was seen as crucial. It was acknowledged that it would be impossible to disentangle the interventions from the context in which they were introduced and hence some form of contextual diagnosis

would be necessary and various approaches to this were discussed.

The manageability of a large project was a key concern. Particular difficulties envisaged included project managing a large number of sites and how to get site 'buy in'. The need for good contingency plans was acknowledged. Another anticipated difficulty was the lack of baseline audit data about peri-operative fasting practice. It would be necessary to assess practice prior to implementation, but it would not be possible to assess this prior to the launch of the guideline, which is already scheduled for January 2005. Thus a pragmatic approach would be needed to make progress on the proposal.

From a research funder's perspective, researchers need to pay attention to the research itself, user engagement and strategies to increase impact. Therefore all of these need to be considered in the proposal and the challenge of combining them was acknowledged.

The group concluded with a discussion around the subtleties of research impact and research contribution and decided that there was a continuum, which runs from contribution to influence and then to impact; these concepts, it was argued, should not be seen as synonyms.

4. Key issues arising from the discussion group on assessing the impact of systematic reviews

Key methodological challenges identified in advance, and used as a rough framework for discussions, included:

- How might you go about mapping/tracking impact, even in a purely descriptive sense?
- What is the relative impact of content, presentation and user involvement in promoting use?
- Who should evaluate the impact of research?
- How do you communicate to people what you mean by research utilisation research?!
- Is a JRF²-type findings summary really the best we can do in terms of a research summary?

On the face of it, systematic reviews offer neat packages of evidence that ought readily to be taken up by interested stakeholders. However, in discussing how such uptake, use and impact ought to be assessed, several core issues emerged:

- *The complexity and diversity of the potential "user audiences" where we might want to track impacts.* These included, for example, the lack of clarity over who indeed were key decision makers, the rapid turnover of staff in key roles, and the shifting in and out of focus of 'hot' topics.
- *The amount of work needed to be invested after review completion before it is even worth tracking impacts.* For example, review findings do not necessarily 'speak for themselves', they may need to be translated, and to be supported by active dissemination strategies. In addition, good review activity may need to embody aspects of partnership and sustained interactivity during review

² Joseph Rowntree Foundation

development. Without this broader supportive activity it was felt that any impact assessment would be lacking in merit.

- *Subtlety of potential impacts.* Any impact study ought to be clear about what would be a reasonable set of impact outcomes as these may be more subtle than simple outcome impacts – in particular, the need to track the more ‘enlightenment’ impacts.

Further discussion clarified that there may be a need for researchers and (especially) funders to more clearly delineate between *research* (primary or secondary), the communication of that research in a way that encourages impacts (i.e. strategies of *user engagement*), and the assessment of the impacts of these efforts (*research impact assessment*). This final strand (*research impact assessment*) has itself two components: assessment of *specific* impacts (*did a particular piece of research get used and change anything?*) and *generic* investigations (*why did research get utilised and what does this knowledge tell us about strategies for increasing research impact?*). The second component is clearly a more challenging proposition – indeed a fresh research agenda of its own.

While full separation of these different strands may well not be possible (because of overlaps and interactions), there may be merit in clarifying who should carry out these activities and how they should be funded. At present, many research funders seem to expect that successful bidders should (a) do the research (b) engage users and (c) assess impacts. Yet it is not clear that the balance of effort spread across these three activities can always be optimised; nor that researchers are the most appropriately skilled to engage equally across all three strands.

The positive conclusions reached in the discussions about ways of moving forwards included:

- A clearer understanding and articulation of the appropriate levels of involvement in the three distinct activities of (a) research (b) user engagement around that research, and (c) assessment of the impacts of these first two.
- The importance developing a greater degree of specification around the core methodological questions as outlined by Isabel Walter: *why? what? how? when? where? and who?* When each of these is specified to some degree of clarity it should then be possible to outline feasible studies of the impacts of systematic reviews.

Day Two: Plenary presentation by John Gabbay and Andrée Le May (University of Southampton) – Reflections on the use of different qualitative methods in studying the implementation of research evidence

Andrée and John reflected on the many projects that they have been involved in, which have sought to increase the use of research and/ or evaluate strategies aimed at increasing research use. The starting point for these reflections was their criticism of the “evidence-based movement’s” overly linear-rational model of evidence-based practice, i.e.:

- Identify a client-centred problem
- Frame a focused question
- Search thoroughly for research derived evidence
- Appraise this evidence for its validity and relevance

- Seek and incorporate users' views
- Use the evidence to help solve the problem
- Evaluate effectiveness against planned criteria

They explained why it was useful to distinguish different levels of evidence-based practice: the central edict/ guidelines; local evidence-based policy; individual clinicians' practice; and ultimately the delivery of evidence-based patient care.

In their more recent work, they have been examining knowledge use within Communities of Practice (CoPs). They described two such studies: the first – at the level of local policy development - was a study of artificially constructed CoPs and the second – at the level of clinical practice - an ethnography of a natural CoP in primary care³.

The first study involved a piece of action research where two members of the research team facilitated a number of specifically constructed multi-sector CoPs, whose purpose was to develop integrated services for older people (particularly around discharge planning and convalescence care). The whole research team also had the task of describing and researching the CoP process, including the knowledge used by CoPs. In analysing these processes the research team drew upon the following data sources:

- Descriptions of 14 CoPs including observers' accounts, transcripts of key elements of meetings, and research observers' reflections
- Minutes of 14 CoP meetings
- Facilitators' reflections and 'story'
- 68 interviews with CoP participants
- Accounts of contextual events

The qualitative analysis of this data highlighted the unpredictably contingent nature of knowledge processing by practitioners, a process that confirms the importance of experiential relevance, anecdotal evidence and the prevailing consensus amongst peers. It is also a process influenced by power-differentials between individuals and across professional groups.

The main thrust of these findings was confirmed in the second study of a natural CoP in primary care, which in one of the sites involved ethnographic fieldwork over two years in:

- 10 surgeries
- 16 GP visits
- 3 nurse clinics
- 29 practice meetings

³ Gabbay J, le May A, Jefferson H, Webb D, Lovelock R, Powell J, Lathlean J. A case study of knowledge management in multi-agency consumer-informed "communities of practice": implications for evidence-based policy development in health and social services. *Health. An interdisciplinary Journal for the Social Study of Health, Illness and Medicine*. 2003 Vol 7 283-310

Gabbay J, le May AC. Evidence based guidelines or collectively constructed "mindlines"? Ethnographic study of knowledge management in primary care. *BMJ* 2004;329:1013

- multiple informal chats and interviews

The ethnographic study sought to explore how practitioners used knowledge and found that they use what Andrée and John have called ‘mindlines’: the collectively reinforced, internalised tacit guidelines that shape practice.

The overall methodological conclusion drawn from these reflections was the importance of qualitative methods for examining research use, and in particular the need for ethnography. The studies also highlighted the importance of employing an analytical framework which does not impose an inappropriate rational-linear, decision-making straight-jacket for conceptualising research use.

Day Two: Reflections on discussions

Sandra Nutley used Figure 1, which highlights the interaction between research findings, initiatives to increase research use and research users, to illustrate the way in which the four projects discussed during the seminar encompassed a useful range of questions and issues about research impact. All four projects were concerned in some way with learning from initiatives to increase research impact but from different perspectives.

It became clear during the seminar that the three circles shown in Figure 1 need to be embedded in a wider context (as shown in Figure 2). It was also noted that frequently not enough attention is paid to the research users circle of the diagram and we do need to distinguish between some very different groups of potential users of research (see Figure 3).

The problem of defining research use and research impact reoccurred throughout the seminar. The usefulness of the distinction between: instrumental use/ impact, conceptual use/ impact and symbolic use/ impact was confirmed. In some studies it was also considered useful to look more generally at the ‘research mindedness’ of potential research users and at the ‘user mindedness’ of researchers.

Day Two: Concluding remarks

Sandra Nutley and Isabel Walter noted four main conclusions to emerge from the seminar:

- Assessing research impact is difficult but this is in large measure due to the many things that we could do
- We have to make choices – we can’t do everything
- The usefulness of the why, what, how, when, where and who framework introduced on Day One in making these choices
- The need to recognise and document the strengths and limitations of the choices that we make.

Huw Davies brought the seminar to a close by thanking participants for their contributions, particularly the plenary speakers and the discussion group leaders. He also explained that this was the last seminar in the series funded by the ESRC. He encouraged participants to keep in touch with RURU and with other members of the group, particularly around possible opportunities for future collaboration on research impact issues.

Figure 1: Mapping the project areas

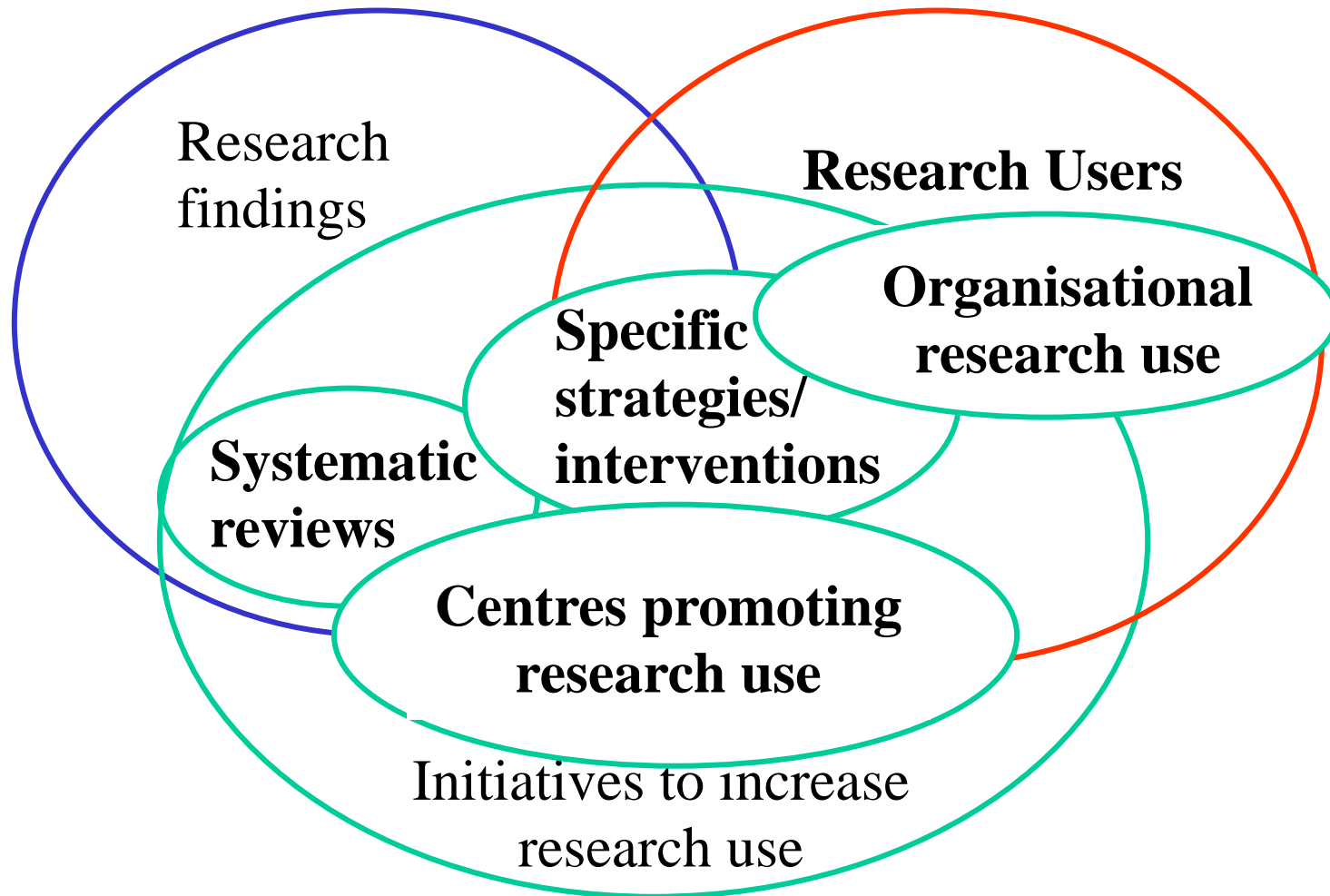


Figure 2: Research interactions in context

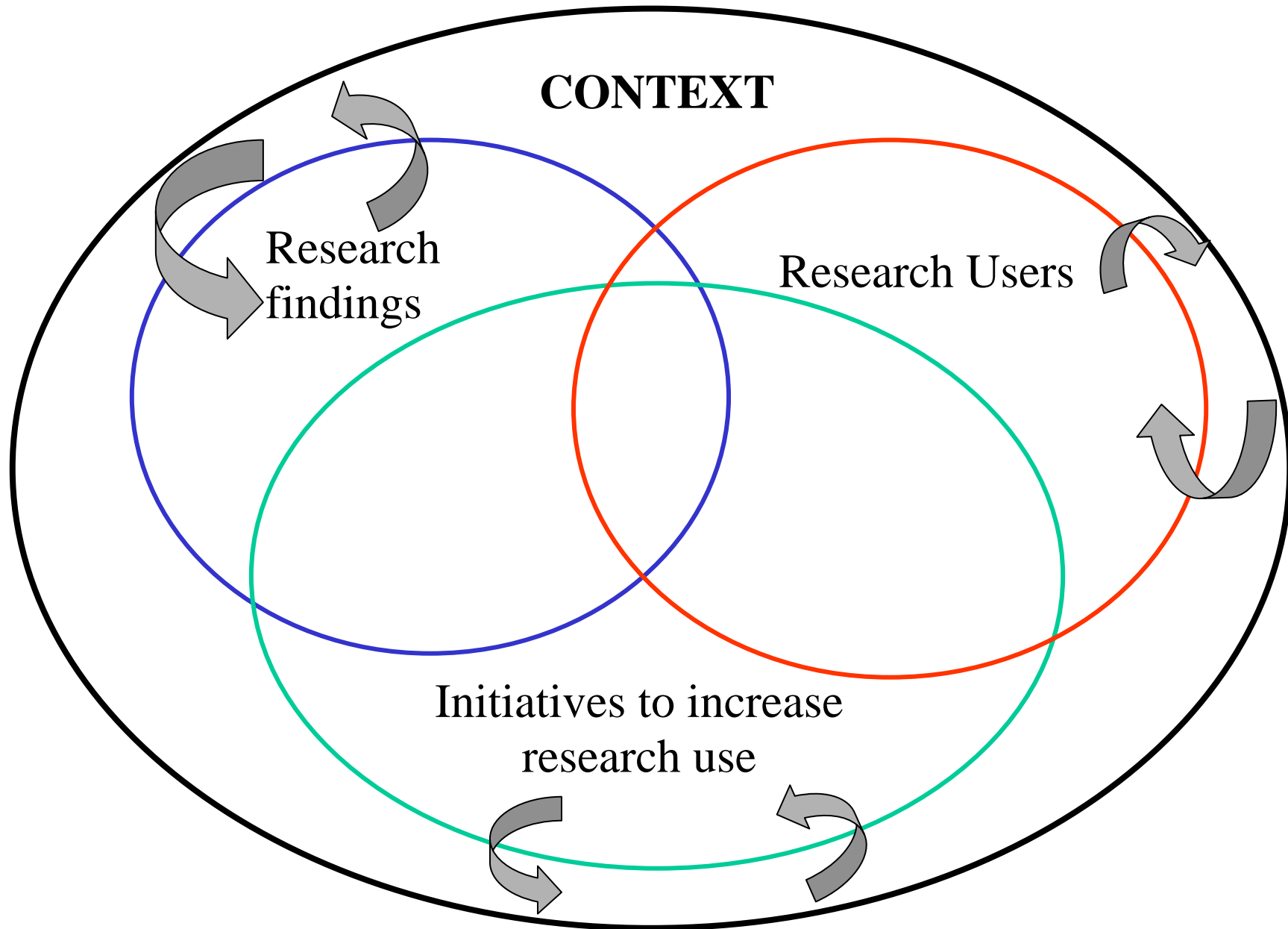


Figure 3: Identifying different research users

