Dissemination and Utilization of Research Findings

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Abdalla Uba Adamu
Department of Education
Bayero University, Kano

Introduction

Much social research is conducted for the avowed purpose of influencing policy decisions. Government agencies, international organizations, foundations, and professional associations sponsor research that is intended to provide guidance for wiser policies. Research is often conducted in university departments, university research centers, institutes, not-for-profit and for-profit research organizations, and within operating service organizations. Much of the research (although by no means all) is thoughtfully done with careful attention to appropriate theories and valid research methods. Yet a sizable fraction of it never influences the audiences for which it was meant.

I will explore the question of which kinds of research, under which conditions, have a better chance of making a difference in policy decision and ultimately in the adoption of the recommendations of the research to influence practice. Through this, I hope to provide a model which will help research sponsors and researchers to conceptualize, conduct, and disseminate research in ways that increase the likelihood that policy audiences will pay attention. That is the long-range objective: ***to help improve the use of evaluation evidence in the making of policy***. My paper is thus divided into two broad sections. In section one I will look at the theoretical postulates of research dissemination, drawn from the literature and in various disciplines, not just education. In section two, I hope to provide a more practical approach to analyzing barriers to research dissemination and providing possible solutions to these barriers.

A great deal is known from more than twenty-five years of research on "knowledge utilization" (KU), which is the term by which this phenomenon is generally considered. Many studies have investigated the characteristics that are associated with greater use of research findings: characteristics of the studies, of the dissemination mechanisms, of the researchers, or of the users. Scores of studies of knowledge utilization have been published, providing a cafeteria of answers to the question of what kinds of research are most apt to be used. Unfortunately, the answers have not converged. For example, some studies find that research quality is important for use; others find that the quality of the research is unrelated to how much influence it has. Some studies find that policy actors turn to research findings when they face a crisis situation; other studies find that crisis is not an environment favorable to research use.

Much of the reason for the discrepancies in research results on knowledge utilization has to do with differences in definition and in methodology. Regarding definition, researchers have taken different approaches to the meaning of "utilization." What does it mean that a particular study has been "used"? Some researchers expect that the findings of the research will

[1] Professor Abdalla Uba Adamu is a Lecturer in Science Education, Curriculum Development and Research Methodology in the Department of Education, Bayero University, Kano

determine the course of policy, i.e. it will change a decision from what it would have been in the absence of that research. Other researchers take a wider frame: they consider "use" as any serious consideration of the findings of research, whether or not they are actually followed. These latter researchers recognize that many elements go into the making of policy and that it is naïve to expect that research results will overpower all other interests, ideological commitments, and previous information in the issue-arena. If research findings are given a serious hearing, they have a chance of altering policy makers' understanding of the issues, their priorities and agendas, and even their subsequent actions further down the road. On the other hand, if one takes a liberal definition of "use," how can the knowledge utilization researcher truly know whether the research results have received serious consideration?

Disseminating Research Findings

Dissemination is a process of sharing information and knowledge. The challenge of dissemination is to improve the accessibility of research findings to those we are trying to reach. This means first to ensure the physical availability of research materials to as large a proportion of the target audience as possible, and secondly, to make research findings comprehensive to those who receive them.

The conventional model of knowledge transfer is linear. Information is seen to flow from the information provider, via the chosen media, to the information user. This model assumes that dissemination is a one-way, top-down flow of information from the 'experts' to a passive audience. In reality, information flow is a far more complex process; it is an interactive, multidirectional exchange of knowledge and ideas that should be reflected in research dissemination strategies.

Four Dimensions of Knowledge Utilization

While no all-encompassing theory or explanation of knowledge utilization has been described and tested, the literature includes a great deal of information that can help to strengthen dissemination efforts. Within the varied perspectives about dissemination, authors generally consider some combination of these ***four*** major elements:

- the dissemination ***source****,* that is, the agency, organization, or individual responsible for creating the new knowledge or product, and/or for conducting dissemination activities,
- the ***content*** or message that is disseminated, that is, the new knowledge or product itself, as well as any supporting information or materials,
- the dissemination ***medium****,* that is, the ways in which the knowledge or product is described, "packaged," and transmitted, and
- the ***user****,* or intended user, of the information or product to be disseminated.

Important factors related to each of these four elements are listed in Table 1

Table 1:
Elements And Issues Related To The Dissemination Process

Elements of Dissemination	Issues In Effective Dissemination
Source	• Perceived competence • Credibility of experience • Credibility of motive • Sensitivity to user concerns • Relationship to other sources trusted by users • Orientation toward dissemination and knowledge use
Content	• Credibility of research and development methodology • Credibility of outcomes • Comprehensiveness of outcomes • Utility and relevance for users • Capacity to be described in terms understandable to users • Cost effectiveness • Research design and procedures • Relationship between outcomes and existing knowledge or products • Competing knowledge or products
Medium	• Physical capacity to reach intended users • Timelines of access • Accessibility and ease of use, user friendliness • Flexibility • Reliability • Credibility • Cost effectiveness • Clarity and attractiveness of the information "package"
User	• Perceived relevance to own needs • User's readiness to change • Information sources trusted • Format and level of information needed • Level of contextual information needed • Dissemination media preferred • Capacity to use information or product (resources, skills, and support)

Source: Review of the Literature on Dissemination and Knowledge Utilization, Produced by the National Center for the Dissemination of Disability Research (NCDDR), Revised October 2000. URL http://www.ncddr.org/du/products/review/exhibit.html

Let me look at each of these broad categories more closely

Dissemination Source
Important factors related to the dissemination source — the originator of the research results and/or any intermediaries, or linking agents, responsible for disseminating the results to intended users — include relationships with potential users, the source's credibility, and orientation toward use.

Building relationships between researchers and users. An important concern here is the "two-communities" perspective on research utilization. As

Fuhrman (1994) explains, "We are told that researchers and practitioners operate on different timelines, use different languages, and respond to different incentive systems" (p. 133). Leung (1992) describes a study that concludes "that distrust and even antagonism exist between researchers and those who use research" (pp. 287-288). This gap between researchers and the potential users of their research becomes an even greater concern, given these persistent findings in the literature:

- The source of information disseminated generally is more important to users than the content of the information; according to Hutchinson and Huberman (1993), one of the most important findings from the research on dissemination is that "the nature of the material that is being disseminated is less important than the links all the way down the line" (p. 15).
- Users tend to accept assistance, information, and ideas from sources they know and trust (Fullan, 1985; Carrillo, Lumbley & Westbrook, 1990; Robinault, Weisinger, & Folsom, 1980).

Understanding the limitations and biases of research. One factor related to closing the gap between researchers and users — and linked to constructivist perspectives about knowledge as process rather than as received, objective "truth" — focuses on the need for researchers to acknowledge the human limitations and fallibility of their own endeavors, and to understand the beliefs and assumptions they bring to their work. For example, Buchman (1982) discusses the fact that researchers and developers often fail to perceive the influence of their own theories and beliefs on the outcomes of their work; he quotes Nisbett & Ross (1980) regarding "the fallacy of misplaced certainty: "

An important step in reducing people's overconfidence would be taken by leading them to recognize that their interpretations of events, rather than being simple read-outs of data, are inferences that make heavy use of theory. Once one recognizes that the same data would look quite different, and could easily support different beliefs, if those data were viewed from the vantage point of alternative theories, the groundwork for a humbler epistemic stance has been laid. (p. 2)

Duarte and Rice (1992) discuss researcher bias in terms of the credibility of research outcomes for minority populations. They point out that "ethnocentric biases influence research questions, methods, and the interpretation of results" (p. 9). Problems with racial/ethnic classification, population sampling, an overemphasis on between-group differences and under emphasis of within-group differences can affect the credibility of research results. They further argue that "dominant cultural values related to individualism, self-reliance, and work are evident in rehabilitation legislation, policies, and procedures (e.g., individualized written rehabilitation program plans, independent living programs)" (p. 12). Again, it is important for researchers, policymakers, and practitioners to be aware of their own values and assumptions.

Factors influencing credibility. Some utilization studies have focused explicitly on the issue of credibility. The more sophisticated studies identify two components of credibility: expertise and trustworthiness. *Expertise* "refers to

how knowledgeable or competent the audience perceives the speaker to be on the topic," whereas *trustworthiness* "means the degree to which the audience believes the communicator is honest or sincere in the statements made" (Marquart, O'Keefe, & Gunther, 1995, p. 390). Some studies suggest that perceived expertise is less important than trustworthiness in obtaining audience support.

Orientation of the research or linking organization. Studies suggest that when researchers actively gear their work to use by specific groups, research utilization is improved. In analyzing the success of the agricultural extension model, Rogers (1988) notes that agricultural researchers traditionally have oriented their work "toward potential utilization of their innovations" (p. 501) in production technology. Fuhrman (1994), discusses the need for "building a client-based research agenda . . . and developing forms for research that bring producers and users closer together" (p. 133). These latter, Furhman states, include collaborative, or action, research projects whose benefits include "better focus on problems important to practice, enhanced validity of instruments and analyses, improved presentation of findings, and greater authority for findings" (p. 143).

The Message, or Content, to be Disseminated

The information, material, or products to be disseminated can vary tremendously. Edwards (1991) notes that research results can include "theories, models, paradigms, postulates, generalizations, or findings . . . validated tests, curricula, techniques, programs, or systems," while technological advances can include "software products, devices, equipment, or machinery" (p. 54).

A number of the early studies of knowledge utilization focused on content attributes that were likely to influence adoption; Edwards reports that she "could find no significant changes" (p. 56) in the literature relating to content attributes since 1983. She lists five major attributes that were "found to be significantly related to the rate of adoption"; these include *relative advantage,* which relates to issues of profit, efficiency, or yield; *compatibility; complexity; observability;* and *trialability* , or the ability to be tested. Dearing and Meyer (1994) propose a list of eleven attributes of research outcomes, culled from the literature, that help determine the likelihood of adoption of research outcomes: *economic advantage, effectiveness, observability, trialability, complexity, compatibility, reliability, divisibility, applicability, commutuality,* and *radicalness.* However, the focus is less on the attributes themselves than on the effectiveness with which they are communicated to potential user audiences. All eleven attributes are described in terms of how they are communicated, rather than in terms of their inherent characteristics; for example, *complexity* is described as "the degree to which an innovation is communicated as being relatively difficult to use" (p. 46).

Quality of the content. A number of authors have cited the importance of quality to successful use of research results. However, Edwards (1991) reports that empirical studies have "found no relationship between research quality and use" (p. 61). This finding is confirmed by Huberman (1987), in his reports on a series of utilization studies conducted in Switzerland:

> The poorly conceived and executed studies in the sample appear to do as well as the others, or perhaps even slightly better,

> because research staff in the especially well-designed studies underinvest in dissemination work. (p. 606)

Florio and DeMartini (1993), in their report on a case study of policymakers' use of research, note, "If research conforms to the expectations of the policymaker, it also does not need to be high in quality. If the policymaker feels that the social science information is counter-intuitive, then research quality is more important" (pp. 107-108). Quality of research content, then, appears to be a necessary, but insufficient, consideration in the success of dissemination efforts.

Compatibility with users' needs and beliefs. Most lists of attributes of research outcomes include compatibility. Dentler (1984), among others, stresses that "the property of knowledge that is essential for [use] is its congruence with the real world of practice" (p. 6). Similarly, a study of Tennessee's 140 school systems reported by West and Rhoton (1992) concludes that "the strongest barrier to research utilization, statewide, was the [perceived] non-practical focus of research reports" (p. 13). This finding fits closely with constructivist perspectives on knowledge utilization; related findings are discussed in the section on users.

Kinds of information to include. At least some studies have focused on the types of information that need to be included if dissemination activities are to be effective. For example, Backer (1988, cited in Edwards, 1991) recommends that materials should "emphasize positive behavior more than negative consequences of current behavior," and should "emphasize current rewards, not distant negative consequences" (p. 91). A study of smoking behavior and its implications for the kinds of information that people need in order to make behavior changes "suggests that the most important contribution to changes in practice are those that move the knowledge user from awareness to understanding and to commitment" (Kennedy, 1989, p. 112). Yet, the author notes:

> The predominant kind of information disseminated by educational disseminators is not designed to facilitate this movement. Instead, it assumes clients need help only with stage four — the stage when specific choices are made…The knowledge that moves people to commitment is knowledge about fundamental principles and ideas, whereas the knowledge that helps people make choices is about techniques and strategies. To make decisions, we need a different, more fundamental kind of knowledge than we need to make a choice. (p. 112)

Educators engaged in dissemination activities, Kennedy argues, "move too quickly from ideas to techniques: from a finding that 'engaged time' is important, for instance, to a list of techniques for increasing engaged time" (p. 113). He recommends the inclusion of background information conveying basic principles and rationales for proposed changes. However, this recommendation must be balanced against the recommendations for brevity made in a number of other utilization studies.

Comprehensibility. To be effective, the outcomes of research must be comprehensible to intended users. As Majumder, et al. (1994) emphasize,

"Regardless of how fast, cheap, and accurate the transmission of data might be, those parcels of data are worthless if the receiver cannot interpret and use them" (p. 332). Leung (1992), in describing a study that reinforces the "two-communities" perspective, notes that "language differences, which often hinder communication," (pp. 287-288) were listed as a primary cause of negative attitudes about researchers and lack of use of research outcomes. West and Rhoton (1992), in analyzing the results of their study of Tennessee school systems, note that administrators who described research results as impractical "felt that research was often difficult to understand and confusing. They noted that reports are usually too technical and that the reports would be utilized more if the material was presented in a clearer fashion" (p. 13).

Backer (1988) discusses the necessity to "transform" (p. 20) the message to be disseminated for user groups. A special education dissemination project reported by Felker (1984) found that "research 'translation' is necessary" (p. 36). And Newman and Vash (1994) state that many researchers "need help re-packaging [material] for those who supply the general public" (p. 385). Findings in the literature include the following recommendations for "translating" and "transforming" research outcomes into usable, comprehensible messages:

- Backer (1988, cited in Edwards, 1991) recommends that researchers "provide simple, clear, and repeated messages" (p. 91).
- "What is known about an innovation needs to be translated into language that potential users can understand readily, abbreviated so that attention spans are not exceeded, and made to concentrate on the key issues of 'Does it work?' and 'How can I replicate it in my organization?'" (Backer, 1991, p. 234).
- Soumerai and Avorn (1987, cited in Sechrest et al., 1994) "concluded that to be effective, dissemination efforts must be characterized by brevity, repetition, and reinforcement" (p. 193).
- Glaser, Abelson, and Garrison (1983) note that "an innovation . . . will be accepted more easily if it is at what Halffner [1973] calls a low 'level of abstraction'" (p. 15).
- Steinke (1995) cites Shapiro (1986), who found that "readers processed new scientific information more rigorously when articles provided analogies" (p. 435).

The Dissemination Medium

Those engaged in knowledge utilization — as well as potential users — sometimes have difficulty in distinguishing the dissemination medium from the message; as a result, the literature includes a number of efforts to sort out the two. Machlup (1993, p. 451) explains that the use of a mode of transportation, such as a truck, "and use of the transported object are separate things. Likewise, use of a mode of information should not be confused with the use of the message or knowledge conveyed." Experts acknowledge, however, that in many cases, "knowledge cannot be easily separated from its product, program, practice, policy, or public information vehicle. In fact, there are many interaction effects. Thus the [dissemination] vehicle selected may enhance or detract from the content it carries" (Klein & Gwaltney, 1991, p. 245). Selection of the dissemination media most appropriate for a particular content and audience, then, is a complex and challenging task.

The media and formats available for dissemination are increasing rapidly with new technological development. This proliferation is helpful in meeting the need for numerous and varied dissemination media. However, it is necessary to keep in mind that, as Leung (1992) reports, some "consumers continue to lack the basic tools required for accessing what is currently available" (p. 293); he notes that one of the most elementary — and important — guidelines for selecting a dissemination medium is that "utilization will not occur if persons with disabilities cannot physically gain access" (p. 299).

Another critical understanding is that, no matter what new and exciting technologies come along, personal interaction remains the most effective dissemination medium. Paisley (1993) points out that "the sweeping claims made for digital media today are similar to those made for analog media 20 years ago, when in fact the analog media played only a secondary role to the prime movers of social networks and personal influence" (p. 222).

Digital technology and new equity concerns. As Paisley (1993) notes, "Digital technologies bring the most significant new communication capabilities to knowledge utilization in the 1990s" (p. 222). The widespread use of "small media" such as personal computers, and the proliferation of use of the Internet and other electronic networks, have brought new, cost-effective dissemination channels to an ever-broadening audience. However, Paisley, among others, points out that, while "the new small media seem ideal for knowledge utilization…little is known about matching these media to the dissemination, coordination, technical assistance, and problem solving roles of knowledge utilization programs" (p. 227).

In addition, as the U.S. Office of Technology Assessment (1988) has noted, "The advent of electronic dissemination raises new equity concerns" (p. 9). NIDRR (1994) has pointed out the implications of specific types of disability, such as movement or visual impairments, on access to computer use and the need for adaptive devices. Anderson, Bikson, Law, and Mitchell (1995) report "very large differences" in household computer access and use of electronic networks by income category, "large differences" by level of educational attainment, and some differences by race that cannot be attributed to other factors:

The primacy of personal interaction. The frequency of interpersonal contact also matters. Dentler (1984) says that intensity of assistance is an important factor. Similarly, Peterson and Emrick (1983) recommend that "direct intervention should be distributed over a period of two years or longer in most cases, with more frequent contacts occurring in the initial stages" (p. 243).

Using multiple media formats. While stressing the necessity for in-person support, most experts agree on the need for a combination of media and interpersonal strategies (Edwards, 1991; Peterson & Emrick, 1983). Crandall (1989), for example, concludes that "adequate materials and procedural guidelines, coupled with responsive, in-person assistance during later implementation, are imperative for maximum success" (p. 95). Sechrest et al., (1994) make a similar point, focusing as well on the importance of the intensity of the dissemination effort:

> For every audience, *multifaceted* approaches to communication will be required if effective communication is to be achieved. Single modality efforts are not likely to be effective…Ample evidence exists to show that efforts at low levels of intensity simply do not have dependable effects. (p. 193).

The Intended Users

As noted earlier, a focus on the user as "an agent who is active in determining how she or he will make use of" (Buttolph, 1992, p. 463) new information or products is perhaps the most important element in our current understandings about dissemination. This new understanding has two principal implications. First, the materials to be disseminated must address the context and concerns of a potential user's daily life. Most dissemination and utilization experts conclude that the most effective way to address this requirement is to involve potential users in the project from the beginning, with ongoing and substantial interaction between researchers and users (Edwards, 1991; Fuhrman, 1994; Leung, 1992; Westbrook, 1994).

The second major implication is that disseminators must attend to the potential user's "readiness for change," which Backer (1994) defines as "willingness--a state of mind" that is the precursor "of actual behaviors needed to adopt an innovation (or to resist it)" (p. 2). Backer goes on to note that, "in practice, factors related to readiness are often ignored" (p. 3). He describes conditions needed for change, which include "active interventions... to deal with the human dynamics of change... to overcome resistances, fears, and anxieties about change" (p. 10).

In discussing readiness for change, Backer (1994) also warns disseminators not to assume automatically that a user's lack of such readiness is a negative circumstance: "Low readiness for change is not necessarily irrational, and in fact may represent an important source of input about the practical worth of innovations, or the strategies by which they are implemented." He notes that the first four stages of the Concerns Based Adoption Model's levels of use model "are directly concerned with readiness" (p. 4).

One important task for disseminators is to understand the incentives that can influence potential users to change. Hutchinson and Huberman (1993) note that incentives may be *internal* to the user, or *external,* that is, applied or mandated by outside sources. They report on several studies that found

> that both personal incentives and organizational incentives were strongly associated with use, but that personal incentives were a more potent force. External stimuli alone have limited impact in producing the openness required for the adoption of new ideas. However, mandates, when combined with personal incentives, improve the prospects for implementation. Mandates may stimulate personal incentives when professional rewards are visible, concrete, and personally meaningful. (p. 14)

Involving user audiences in setting research agendas and conducting research and development activities can help to address issues related to readiness for change.

What are the barriers to effective dissemination?

There may be barriers that prevent researchers from disseminating their work and there may be barriers that prevent research findings from reaching their potential audience in a usable form:

- **Institutional priorities** may dictate that the results of research are used only for internal consumption, with no priority being given by management to wider dissemination. Once distributed, research outputs may be stored rather than put to use as training resources or discussion materials.
- **Practical difficulties** may act as disincentives to researchers. These may include tasks such as invoicing, and the need to produce research outputs in alternative formats. Time constraints may be an additional constraint to dissemination activities, especially if competing against the production of academic research papers, which have greater perceived intellectual credibility.
- For the users of information, there may be **technical and infrastructural barriers** to accessing information. For instance, Internet access may not be an option for all or connections may be unreliable or slow. Social and cultural barriers also have an effect and demand that disseminated findings are presented in appropriate formats, of the right length, style, content and language.
- Researchers may be **anxious about critical peer review,** as wider dissemination results in greater exposure of their work.

What do we need to consider when planning a dissemination strategy?

- **Information users**
  - What information do they need and does its content have local relevance?
  - Do they have the resources to receive and use the information?
  - What is the most appropriate and effective information format and dissemination method?

- **Information source**
  - Do users perceive the source to be competent, experienced and trustworthy?
  - Is the source sufficiently oriented to dissemination and knowledge use?

- **Information content**
  - Is the content comprehensible (clear and unambiguous) to users and written in a language they can understand?

- **Information medium**
  - Is the information medium one that can be easily accessed by users?
  - Are there more effective media that might improve accessibility and comprehension?

Conclusions

There is some debate about the relative advantages of different dissemination pathways or methods. The traditional way of communicating academic research findings is through refereed journal articles. However, these are unlikely to reach a broad-based or non-technical target audience. Decisions about appropriate dissemination pathways should be informed by what is known about the users, source, content and medium. A general principle is that optimum dissemination is achieved through using a wide variety of pathways, from traditional and face-to-face communication methods, to the use of ICTs, in order to cover the range of user needs (e.g. of policy makers, practitioners and the research community).

Thus the Lessons learned from this discussion are:

1. Dissemination should be a key element of any research, and requires adequate funding for it to be carried out effectively both during and beyond the lifetime of the project.
2. A dissemination strategy should include a clear statement of the rationale for dissemination, and how it relates to the research objectives.
3. A key element of dissemination planning should be the identification of potential target audiences.
4. Identify and assess users' information needs. These depend on user status and role (whether they are national/local government officials, sector professionals, community representatives or the poor), and the likely impact of relevant social and cultural factors. Broadly, if information is to be comprehensible, the content, language and written style should be clear, unambiguous and accessible.
5. It is important to have some understanding of the ways in which target audiences receive information. These may be the most appropriate means of disseminating research findings but alternative and less traditional ways of transferring information should also be considered, It is important to use a variety of dissemination methods when communicating research, linked closely to user information needs. Equal priority should be given to each type of output and the users it is intended to reach.
6. The timing of any dissemination activity should be carefully planned to maximize its impact. A staggered approach, to dissemination with the release of different types and levels of information (such as interim reports) to coincide with the various stages of the project cycle, is likely to have much greater impact than a single end of project report.
7. A dissemination strategy should include intended methods of monitoring and measuring the impact of dissemination.

Specifically, the following suggestions for improving the effectiveness of dissemination are based on material from the focus groups and questionnaire responses.

Issues for research commissioners

- *Timing:* research which delivers solutions at the right time to specific questions facing practitioners and policy-makers is more likely to be used.
- *Relevance to the current policy agenda:* research set in the current policy context is likely to find a ready audience.

- *Allocating dedicated development resources within research funding:* survey respondents regarded lack of resources as the biggest impediment to effective dissemination.
- Including a clear dissemination strategy at the outset.
- *Involving professional research users in the commissioning process:* this was thought likely to alter professionals' perceptions of research as elitist with no relevance to their daily practice.
- *Involving service users in the research process:* respondents saw failure to involve relevant research users at an early enough stage in the research process as an impediment to effective dissemination.
- *Commissioning research reviews:* to synthesise and evaluate research.

Issues for researchers

- Provide accessible summaries of research.
- Keep the research report brief and concise.
- *Publish in journals or publications which are user friendly:* around two-thirds of the research producers who responded to the survey were more likely to publish their research in professional and academic journals. The research users who contributed to the study noted that such publications were difficult to access and such material was seen to impede effective dissemination.
- *Use language and styles of presentation which engage interest.*
- *Target the material to the needs of the audience:* policy-makers and managers preferred bulletpointed summaries, whereas practitioners and service users valued verbal feedback.
- *Extract the policy and practice implications of research:* where possible, this should be done in partnership with practitioners and policy-makers.
- Tailor dissemination events to the target audience and evaluate them: use feedback to inform future dissemination events.
- *Use the media:* relevant journalists need to be engaged to ensure that research messages can be incorporated into the media's schedules.
- *A combination of dissemination methods* was regarded as the best way to maximise effectiveness. These included: newsletters; websites; linking with existing databases; use of different formats (such as audiotapes, videos and CD-ROM); use of print and broadcast media; research syntheses/reviews; involving local practitioners and policy-makers to spell out implications of research; targeted mailing of research summaries to policy-makers and practitioners; invitation seminars; appropriate summaries for service users and user involvement in planning dissemination.
- *Being proactive:* by contacting agencies rather than expecting practitioners, managers and policymakers to attend national or regional conferences.
- *Understand external factors:* such as political sensitivities, financial and administrative mechanisms.

Issues for practitioners and policy-makers

What can help practitioners and policy-makers make better use of research and ensure that their practice and policy is underpinned by sound research evidence?

- *The role of leadership and senior management* was noted to be crucial in: demonstrating the value of research as a source for new ideas; in accessing and making use of research; in encouraging research by practitioners; and in active collaboration with research producers.
- *Presence of an organisational culture supported by senior management* which recognised the importance of developing evidence-based practice.
- *Facilitation of adequate training and development support* by senior management for their staff; critical appraisal and understanding research methodologies were regarded as skills which would help practitioners make better use of research in their practice.
- *Incorporation of appropriate research skills in basic and advanced courses* would result in practitioners and managers being research-literate and more likely to underpin their practice with sound research.
- *Product or issue 'champions'* who are enthusiastic and have credibility in the organisation can act as a catalyst in promoting integration of available research into practice.
- Resources linked to research and development need to be protected and not be the first to be axed in time of resource constraints.
- *Integration of the research and development component in job descriptions* is more likely to lead to acceptance of research and the promotion of a culture which encourages underpinning policy and practice with sound research evidence.
- *Managers can ensure that time is made available within the practitioners' work routines* to enable them to share learning from participation in research projects, or from training on research skills, with their colleagues.

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