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Variation in ways of experiencing dissemination: Implications for the adoption and adaptation of teaching and learning innovation projects

Jo McKenzie

University of Technology, Sydney
Jo.McKenzie@uts.edu.au

Shirley Alexander

University of Technology, Sydney
Shirley.Alexander@uts.edu.au

Abstract: This paper describes five ways of experiencing dissemination, from distributing project products and information to experiencing dissemination as an ongoing two-way engagement aimed at bringing about change in the culture of teaching and learning. It is based on a phenomenographic analysis of interviews with developers and adopters of project innovations about project dissemination, adoption and adaptation. Engaged, ongoing dissemination activities are more likely than passive websites or publications to bring about adoption and embedding of innovations in new contexts but it is widely perceived that academic publications are more likely to be recognised and rewarded.

Keywords: dissemination, adaptation, innovation, phenomenography

Background

Dissemination of good practices and innovations is a critical issue for international granting agencies and universities seeking to improve teaching and learning. Concerns with the lack of dissemination of project innovations led the AUTC to fund two dissemination projects in 2004-2005. The aim of the projects was to inform the work of the Carrick Institute for Learning and Teaching in Higher Education through identifying the conditions under which teaching and learning project innovations might be more effectively scaled-up (Coburn, 2003) to improve teaching and learning across the sector. This paper is based on work taken from one of these projects (McKenzie, Alexander, Harper & Anderson 2005).

The project was informed by literature on dissemination of innovations and literature on improving teaching and learning in higher education. The literature on dissemination is recent and broad, and without a unifying theory. The general literature can be divided into a number of categories:

- focus on the innovation itself – assuming that products or processes that are superior to those already in use will be widely adopted. Superior products are said to be compatible with existing practices, trialable, and observable (Rogers, 1983; 1995). In higher education, Collis and Moonen's (2001) 4-E model takes largely this focus.
- focus on the adopters of the innovation – assuming that understanding and meeting the needs of potential adopters will result in the take-up of the innovation. Widely cited examples include Granovetter's (1973, 1982) "strength of weak ties theory" which highlights the value of social networks in disseminating innovations. Another group of theories categorises individual adopters, for example Rogers' (1983, 1995) identification of enthusiasts, early adopters, late adopters, late majority, and laggards. The Concerns-

Based Adoption Model (Hall, George & Rutherford, 1986) focuses on the stages that adopters move through in making decisions to adopt innovations, from awareness to considering how it will affect them and the consequences of its use.

- holistic and systems approaches identify all the elements that influence the dissemination process and the ways in which they influence each other (Coburn, 2003; Zhao & Frank, 2003).

Holistic and systems approaches have been used in some limited research on dissemination and change in higher education. These approaches acknowledge that whether the potential of teaching and learning innovations is realised depends on how teachers integrate them into the learning environment (Laurillard, 2002; Alexander & McKenzie, 1998), so teaching, curriculum and university contexts need to be considered. One UK study found that successful adoption and implementation in new contexts required conditions such as involvement of innovators and potential adopters in networks and communities of practice, funding mechanisms which encourage the spread of innovations rather than only their development, recognition and rewards for implementation and professional development support (Gibbs, Holmes and Segal, 2002). Dissemination can be seen as a process of changing academic work, requiring attention not just to the innovation but to the understandings of teachers, their engagement in the process, opportunities for collaboration and the organisational structures and processes which support and reward desired changes (Martin, 1999; Elton, 2003).

This paper is based on one aspect of a broader dissemination project (McKenzie et al, 2005). The project aimed to improve understanding of the interacting systems of conditions which favour the dissemination, adoption, adaptation and implementation of innovations aimed at improving teaching and learning in higher education. It took a relational perspective, assuming that whether adopters become aware of a project innovation, how they perceive it and whether they are likely to implement, embed and further disseminate it relate to the ways in which developers (and earlier adopters) understand and engage in dissemination.

Methodology

The project focused on cases of innovations that had been disseminated and successfully adopted, adapted and sustained in contexts beyond the development context. Fourteen cases were selected from sources including national and international granting scheme sites, publications and conference proceedings and personal contacts. Cases ranged from large scale innovations which had been disseminated and adopted internationally (eg Supplemental instruction) to development of small scale resources aimed at improving learning of particular aspects of disciplines (eg a series of Mathematics videos). Each case was investigated using a range of methods which typically included document analysis, interviews with project developers and interviews with adopters, defined as those who had adopted or adapted and implemented the project innovation in their own context. It needs to be noted that the distinction between developers and adopters is blurred, with many adopters further developing and disseminating the innovation.

Interviews with developers and adopters included questions about what they understood by dissemination, whether and how they had disseminated the project innovation and how the adopters had become aware of the innovation, decided to adopt it and implemented it in their contexts.

This paper focuses on a phenomenographic analysis of variation in the ways in which dissemination was experienced by developers and adopters. The idea of a *way of experiencing* dissemination has been adapted from Marton and Booth's (1997) way of experiencing learning and includes the inter-related aspects of what is disseminated, how it is disseminated (dissemination activities or processes) and the intended outcomes of dissemination activities.

Ways of experiencing dissemination

Five categories were constituted, the first two of which focused primarily on dissemination activities, the next two on adoption and the outcomes of dissemination and one on a change-focused interaction of ongoing processes and outcomes.

A: Dissemination as distributing project products or information

In this category, dissemination is seen as a one-way process of distributing information about the project or distributing project resources after the project is completed. Information is typically distributed through conference papers, academic publications and websites. Websites may also be used for making project products available. For example, one interviewee commented:

the main aspect of dissemination of the project ... was to have a website where the products of the project could be disseminated.

Another interviewee (an adopter of a project and previously a developer) described dissemination as getting project products 'off the shelves'. Dissemination is seen as something which is in addition to project development, rather than part of the project. The intentions of dissemination are for others to know about the project and to meet external requirements, such as satisfying funding body requirements or gaining academic recognition through publication.

B: Dissemination as telling others about the project

Similar to the first category, in this category dissemination is essentially a one-way process, but the focus is on actively telling others about the project or innovation so that they become aware of it and potentially adopt it. Unlike in A, dissemination is seen as happening naturally through the project developer or adopter's enthusiasm for the project and is an ongoing process.

Once someone believes in something they automatically become an evangelist. ... If somebody has a real passion about something they can't help but talk about it. If they're not talking about it it's because they don't believe in it.

Dissemination activities include distributing papers and products and giving conference presentations, but focus more strongly on personal contact. Coffee shop meetings, corridor conversations, university meetings, email lists, professional newsletters and so on are seen as opportunities for dissemination and the project developer or adopter actively seeks out these opportunities.

C: Dissemination as others using the project outcomes

In this category, dissemination focuses on the outcomes of the project being used by others.

It's about being used more than being available. ... If people have just got it but aren't using it then it's not being disseminated.

successful dissemination is for it to be the most useful product ... that it's something that should be used everywhere by all professions involved with [the discipline].

Dissemination activities include those described in the previous categories but go beyond them to include workshops and provision of support resources aimed at helping others to learn how to use the project outcomes in their own contexts. For example, one interviewee noted that the use of a particular medium was uncommon in her discipline, so gave presentations at disciplinary conferences on ways of using it and the effects on students' learning and motivation.

D: Dissemination as spreading and embedding project impacts

This category is similar to the previous one but with a more specific focus on project impacts and on the need for embedding if desired impacts are to continue:

The word dissemination is a bit unfortunate in that it implies passivity, being thrown about like seeds. But obviously the measure of success is going to be how many of these seeds grow and flower. ... Then you're really talking about embedding in the sense of making more widespread the impact.

One project adopter noted that successful dissemination of a project meant that there continued to be:

... a level of engagement with it, and I think that's how I measure the success in this school is that all of the undergraduate pre-degree students use it

As in the previous category, dissemination activities include staff development events and support resources, but unlike in the previous categories, activities focus more strongly on adaptation of the project for new contexts and consideration of difficulties and constraints in the context of use

I've basically gone and done presentations and I haven't pulled any punches, 'this is a problem, this is a problem, that's a problem', you know if you don't get over those three problems then you're not going to be able to use it.

There is also recognition that embedding project innovations may require change in the context and that leadership and resources such as time and money might be required for implementation of a project. Dissemination activities include working as a consultant or mentor with adopters as they implement and embed an innovation and, in large scale projects, can include setting up ongoing networks and communities of interest. Adaptations can then feed back to others in the community.

E: Dissemination as an ongoing two-way process aimed at bringing about change in the culture of teaching and learning

In previous categories, the assumption behind dissemination was that the project innovation had been developed in one context and then others would adopt or adapt it. In this category, dissemination is an inherent part of project development and involves ongoing consultations aimed at maximising the impact of the project on change in departments, universities or disciplines.

What we're talking about is revolution. ... Dissemination isn't a very helpful label for that. There was an implicit agenda of change. ... How were we going to change our universities? How can we maximise our impact?

The focus is on processes which engage people with the project, so that there is a sense of mutual ownership and the project develops in ways which are adaptable and sensitive to the needs and concerns of multiple contexts. One project developer noted that:

Dissemination is part of the process. It's not the end point. ... Its an ongoing process of consultation and you do need a paper, you need a product that you can take out and present to people and get their opinion of, but I think ... If you spend two and a half years developing something that you think is great and six months disseminating it, A, it won't be great, and B, no one will be interested because what you're not involving them. Spend six months putting your framework together and even if you think 'this is dodgy' you'll know that it's dodgy much more than the people you're talking to or they will see what's wrong with it in ways you could never imagine and then the next six months will be that much more productive.

Dissemination activities include all of those noted in previous categories, but an important difference is that communication is seen very much as two way. For example, conference presentations are seen as opportunities to seek feedback on the project as it develops and to make contact with people who might be interested in further involvement, and websites are seen as sites for sharing ongoing progress reports and inviting case studies of development in different contexts.

Implications for adoption of variation in ways of experiencing dissemination

Moving from category A to category E, there are evident differences in the meaning and focus of dissemination and the range of dissemination practices. The focus of dissemination broadens from being exclusively on the innovation and information to the potential adopters of the innovation and their needs, to the broader contexts of teaching, learning and other academic work in universities, departments and disciplines. There is an increasing focus on engaged, two-way and ongoing dissemination activities in addition to one-off, one-way forms of distribution activity.

Our project (McKenzie et al, 2005), other reviews (eg Berger and Kirshstein, 2004) and the broader literature (Gibbs et al, 2002; Elton, 2003) all conclude that passive, one-way forms of dissemination are less effective than more active, engaged and ongoing activities in supporting the adoption, implementation and embedding of innovations, particularly when adoption involves more than a superficial change to the culture of teaching and learning. In this context, it is interesting to compare the five categories with adopters' responses from our project and with Gibbs et al's (2002) distinction between dissemination for awareness, for understanding and for use.

Dissemination in the form of publications and websites seems necessary for recording information about projects and providing academic credibility but is rarely sufficient for project adoption. Adopters very rarely became aware of projects through distribution of information (category A). Almost no adopters became aware of innovations through websites, a finding consistent with Berger and Kirshstein, (2004). Few mentioned publications. Most of our adopters reported becoming aware of projects through some form of personal contact with an enthusiastic project developer or other adopter (category B). This could occur through conference presentations, but direct email, discussions with colleagues and participation in workshops on the project were common.

Adopters needed to further engage with a project and how it could be used in context before they understood and decided to use it. This was particularly the case if use required changes

in the broader curriculum and culture of teaching and learning in a department. Further exploration was facilitated by a wide range of activities consistent with categories C-E, for example workshop series, ongoing consultation with project developers, funded project adaptation activities supported by either the project developers or academic developers or specialist consultants, or collaborative co-development or cascading of the project itself.

While engaged forms of dissemination appeared to be more effective than passive forms, they present a challenge for many academics. A number of interviewees commented that many academics did not have the skills, or the time, to engage in dissemination activities beyond traditional forms of distribution such as presentations and publication:

Good teachers are expert at dissemination in the classroom but not telling people broadly. Experts in the field write papers that three people read. Traditionally academics aren't worried about dissemination, rather than that the paper is out and three other people know about it.

While a few of the successful projects involved academics with a high level of entrepreneurial flair and a lack of concern for traditional rewards such as promotion, most took a team approach. Their projects were designed from the beginning with an engaged view of dissemination, so project teams were built to include people with academic development, change agent and project management capabilities as well as those with disciplinary understandings and other project skills. Specific team members then took responsibility for engaged and collaborative dissemination activities.

A further issue, even for well-designed team projects, was that of support and further dissemination of a project after funding ceased. Although developers (including those who saw dissemination in terms of distribution) were typically responsive to enquiries and would assist people who want to adopt or adapt a project after completion, this was something they did through goodwill and enthusiasm. Most academics perceived that this activity would not be recognised nor rewarded and would compete for time with their other priorities. Several interviewees commented that funding agencies should provide more support for dissemination, ranging from developing academics' skills to being directly responsible for product distribution and support after projects officially ended:

with no thinking on the part of the granting agency, the work and package will sit on the shelves.

Conclusion

Overall, the major implication for those involved in project innovations is that project developers and funding agencies need to underpin their projects with engaged, two-way, adoption-focused ways of experiencing dissemination in addition to traditional forms of distribution and publication. The distribution of project products and information is necessary but is not sufficient for adoption, adaptation and embedding of project outcomes in new contexts. Project teams need to have an appropriate mix of capabilities to support engaged dissemination and both funding agencies and developers need to consider how support for ongoing dissemination can best be provided once projects are complete.

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