Fostering community cohesion to sustain small scale online professional development courses

ACEC 2006 - Best elearning and innovation paper

ABSTRACT
This research explores how community cohesion can sustain teacher participation in a small scale, mixed mode (face to face and online) PD course. Secondary school teachers in Queensland undertook a mixed mode PD course utilising Education Queensland's Learning Place. The results indicate significantly longer participation than required and when combined with interview data supports the proposed community cohesion model as a useful construct in re-considering traditionally ineffective PD design. The community cohesion model, based on Wenger's (1998) Community of Practice, proposes that a community is sustained when teachers work together (mutual engagement) responding to a common need (joint enterprise) and consequently share their ideas, stories, experiences and skills (shared repertoire). This process is as much a transformation of identity as of practice.

INTRODUCTION
One of the key elements in effective professional development (PD) is that, among other design principles, it should be sustained over time (Hawkes & Romiszowski, 2001; Hawley & Valli, 1999; Lloyd & Cochrane, 2005). However, due to teacher preference and system level resource allocation, the majority of PD continues to be delivered in single or short sequences of face to face sessions (Commonwealth Department of Education Science and Training, 2001; Downes et al., 2001; McRae, Ainsworth, Groves, Rowland, & Zbar, 2001). One of the increasing trends by administrators and developers to address the issue of sustained engagement in PD is to use virtual learning environments or a blend of face-to-face and virtual delivery modes. However, the technology alone does not meet teachers’ complex needs. Indeed, online delivery of PD content has been shown to often lack social, emotional, and professional support (DeWert, Babinski, & Jones, 2003; Herrington & Oliver, 2000; Kreijns & Kirschner, 2001). On the other hand blended models of PD have been shown to offer higher levels of social presence through face-to-face delivery and the promise of sustained engagement via the online delivery (Anderson & Baskin, 2002; Henderson, 2004). Nevertheless, in a significant report on PD in ICT for teachers, Lloyd and Cochrane (2005) indicated that blended, or ‘hybrid’, models are limited in impact. Instead they point out that one of the most effective forms of PD arises from professional learning communities. Such an approach subsumes the debate over the mode of delivery, and instead focuses on the need to address the complex nature of teachers as members of a wider community, as professionals with specialist needs, and as situated learners. In essence, PD of teachers must recognise the interdependency of identity and practice.

This paper reports on one case study, comprising of a group of five secondary school teachers in Queensland who completed a PD course entitled, “Integrating Online Learning”. The course was structured with a single face-to-face training day followed by online learning using Education Queensland’s Learning Place. The key, however, was the use of Wenger’s (1998) theory of Community of Practice to both explain and design a PD course that would encourage elements of community and consequently sustained engagement.

COMMUNITY
The term ‘community’ and derivatives such as ‘learning community’ and ‘gaming community’ have been popularised and are often applied to any identifiable group, especially those on the internet. For instance, Lloyd & Cochrane (2005) defined ‘professional learning community’ by citing examples of ‘groups and programs such as QSITE’ (p.23). In contrast, Wenger (2001) argues that ‘a community of practice is not merely a community of interest. … Members of a community of practice develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems – in short a shared practice’ (pp.2-3). However, they ‘are connected by more than their ostensible tasks. They are bound by intricate, socially constructed webs of belief, which are essential to understanding what they do’ (Brown, Collins, & Duguid, 1989, p. 34). Community of Practice places the issue of identity on centre stage. In order for teachers to transform their practices they must enter into what is essentially a personally transformative experience that occurs over time. As a result, Community of Practice begins to explain why sustained experience is valuable, and why PD must tackle more than mere technical skills.
Situated learning at its grass roots argues that learning is a matter of enculturation (Brown, Collins, & Duguid, 1989) or legitimate participation (Lave & Wenger, 1991) within the community of practice. Such a concept cannot be easily atomised. Nevertheless, Wenger (1998) tackled the task of operationalising the theory of situated learning by exploring the mechanisms of a community of practice and extrapolating a set of design principles that recognise the importance of “learning by doing” and “learning by becoming” (p. 5). Wenger calls this design framework a “learning architecture” (Wenger, 1998, p. 230) which “encourages us to consider educational designs not just in terms of techniques for supporting the construction of knowledge (let alone in terms of delivery of curriculum), but more generally in terms of their effects on the formation of identities” (Fowler & Mayes, 1999, p. 11).

Wenger (1998) argued that practice and identity are inseparable components of all Communities of Practice. Practice is more than what we do. It is how we perceive our environment and how we interact with what goes on around us. At the same time, our identity which frames how we perceive ourselves and what is important to us, shapes and is shaped by our practices.

At a community level, both practice and identity sustain a community and therefore learning (Wenger, 1998). Wenger (1998) argued that a community's cohesion is a product of the extent to which practice and identity are invested in mutual engagement (doing things together), joint enterprise (responding together to the organisation's needs and goals), and shared repertoire (resolving problems together). The relationship of these elements is represented in Figure 1.

![Figure 1. Model of community cohesion.](image)

An example of mutual engagement could be teachers who work together, have coffee together, attend meetings together, etc. The same teachers would be involved in joint enterprise, such as responding and aligning themselves to the same departmental requirements and guidelines. Furthermore, the teachers would share their repertoire of ways in which to meet their needs, such as the departmental requirements. In this way the teachers reshape and reinforce their identities as members of the community as well as negotiate and propagate the community's practices. Obviously this process of change occurs over time. However, there is no minimum length of time needed; instead, “it is a matter of sustaining enough mutual engagement in pursuing an enterprise together to share some significant learning” (Wenger, 1998, p. 86). The degree to which the emphasis must be sustained is something which Wenger and the literature in general do not answer.

Practice and identity cannot be externally defined. While a set of procedures can be imposed by the institution, the practices surrounding those procedures are a result of negotiated meaning by the community members. Similarly job descriptions do not define members’ identities. Communities of Practice, and therefore learning, cannot be designed, created and controlled. This is significant for the current investigation because it suggests that we cannot create a Community of Practice for specific PD goals. However, Wenger (1998) argues that while you cannot design the learning you can design for learning. In other words you can design an environment that will either facilitate or frustrate emergent practices and identity. Wenger (1998) draws on the concept of legitimate peripheral participation and states that “required learning takes place not so much through the reification of a curriculum as through modified forms of participation that are structured to open the practice to non-members” (p.100). Learning is more than a process of handing down a defined body of knowledge to new-comers, rather it is best described as a process of catching up to a dynamic, changing and essentially social practice. Aspects or versions of these practices are offered to new-comers who can legitimately participate in a centripetal trajectory. Furthermore, Wenger (1998) points out that practice is not a result of design but a response to design. Therefore it is important that any design for learning balances prescriptive measures with that of emergent practices.

Wenger also argues that our identities are constantly changing; moving in a trajectory that ties both the past and future. In this way we identify ourselves as much by where we have come from and where we believe we are going as by our current competence as members of the Community of Practice. Because identity is constantly being renegotiated it is inextricably linked with learning. In this regard learning cannot be addressed without tackling issues of identity. Any design for learning must support identity formation through facilitating competence as community members as well as allowing for negotiability based on personal trajectories and other issues such as multi-membership.
RESEARCH DESIGN

This research was conducted on two case studies, one in Australia and the other in the United Kingdom. This paper reports on the Australian case study only.

In order to explore the role of community in a small PD course the researcher developed a blended course designed to facilitate community cohesion. The PD course started with a face-to-face training day, ostensibly devoted to technical skills relating to the software. However, a significant aim of the face-to-face training was to give participants opportunities to engage with each other in both professional and social contexts. Social engagement between sessions, including lunch, was moderated by the participant researcher to facilitate swapping of stories. This training day was then followed by an online course which included both individual and collaborative tasks. The course comprised four modules of combined theoretical and technical skills and was designed to be completed within four weeks. The course facilitator acted as a community broker between the local and global communities, as well as facilitating the rhythm of the community through maintaining a flexible, enthusiastic and inclusive approach to course pace and goals. Further design issues will be discussed in the results section.

The PD ‘delivery’ and data collection schedule is represented by Figure 2. Participant observer notes were taken throughout the face to face training with regard to observed social interaction, with a particular focus on factors highlighted by the theoretical framework such as mutual engagement. A questionnaire was administered shortly after the face to face training to establish a marker at the point of transition from face to face to virtual training. Questions focused on issues such as the emergence of community and identity. A participant observer journal was kept throughout the VLE stage noting interactions with the researcher as PD trainer and reported interactions between participants. This was valuable in shaping the semi-structured interviews. During the post face-to-face phase, emails, discussion boards and shared resources were archived. After the minimum course requirements were completed by the participants and the observed level of interaction (as indicated by the number of discussion forum posts and website hits) appeared to be in decline the semi-structured interviews were carried out.

RESULTS AND DISCUSSION

The Australian case study (CS1) included five secondary school teachers from a range of curriculum areas including computer studies, English, history, and social science. Despite the four week minimum requirement for the course the participants continued participating in the online environment for twice that period (see Figure 3).

Figure 3. CS1 site requests and forum posts over time.

Figure 3 indicates the total number of site requests and forum posts for the case study of five participants, not including the course facilitator. Site requests include any requests by the participants’ browsers to view content, announcements, and discussion forums. As shown in Figure 3 both site requests and posts were sustained at a high level for five weeks and at a medium level for an addition three weeks before dropping to no posts and minimal site requests in the tenth week.

Site requests and forum posts are only one indicator of course participation, but analysis of archived materials such as the posts and emails, as well as the participant observer notes also supports the pattern indicated in Figure 3. The reasons for the extended participation are predictably complex. Nevertheless the data collected supports the presupposition of a community-focused blended approach as a positive framework for sustained engagement. While this paper does not allow for a detailed examination of all of the data, several key issues have been chosen which highlight how the model of community cohesion can inform the design of small scale PD courses.
**A community cohesion approach to course design**

In an attempt to facilitate community cohesion the course proposed only one rule: support your fellow community members. This unifying philosophy draws on the community cohesion model (see Figure 1) and aimed to set the tone of engagement, become a core enterprise, and establish the need and authority for shared repertoire. All aspects of the course design were aligned with this philosophy, including the time-line, content, goals, and assessment. Accordingly, a central precept of this course was that in order to complete it, participants had to engage with each other, respond to common challenges, and share practices. For instance, the teachers were asked to investigate different topics and to give feedback to the group on what they felt was important. The other participants responded to these contributions as a way of providing support and further investigating the ideas reported. Unless the contribution was discussed the task was seen as incomplete. One teacher commented: ‘you’re accountable to them as well and their learning is reliant on your participation so if you haven’t participated then you’ve let them down.’ Although the core materials of the course were provided, the essential element of critical evaluation was left to the participants and consequently, when combined with the need to support each other, both encouraged and gave license for the sharing of opinions, experiences, stories, ideas and even divergent trajectories of inquiry. The relationship between engagement, enterprise and repertoire can also be seen in the following quote:

As we got to know each other better, I think through the [social forum] and through you know everything we had to do on the course and how we had to support each other, I think we all became okay with admitting or asking for help.

In this example both social and other engagement combined with joint enterprise facilitated shared repertoire. It is also important to note the reference to time ‘as we got to know each other… everything we had to do… we all became okay’. This supports the community cohesion model which argues that sustained mutual engagement in a shared enterprise leads to shared repertoire. These elements, including their role in negotiating practice and identity are further explained below.

**Mutual engagement**

Mutual engagement provides an important key to community cohesion. The impact of mutual engagement, and its interdependence with joint enterprise and shared repertoire is highlighted by a teacher who commented: ‘the support I felt… when [they] made the effort to participate, yeah… that was really important because [they] made an effort to make mine work.’ However, mutual engagement is not limited to doing tasks together. It must provide situated opportunities to explore and shape both practice and identity. As a result, social engagement is as important in the shaping of identity and validating practices as engaging in purposeful situated tasks. In addition, this case study found that all of the participants placed considerable value on social engagement both in the face to face day and in the online environment. This is reflected in participant engagement in the forums where 37% of all accesses and 35% of all posts were in the social forum, as indicated in Table 1.

<table>
<thead>
<tr>
<th>Table 1. CS1 social and content forum accesses and posts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Forum</td>
</tr>
<tr>
<td>Page Accesses</td>
</tr>
<tr>
<td>Forum Posts</td>
</tr>
</tbody>
</table>

In the first seven weeks of the course, participants experienced bereavement, illness, school excursions, school holidays, as well as the full gambit of work demands including marking and moderation. However, through the support provided by the social engagement they could (re)negotiate their membership of the community as seen in this extract:

“Um, when one of the girls had to fly out for a funeral… everybody made sure that they had posted and… when I said I’d been ill, everyone [asked] “are you okay?” And I expressed at one stage that, um, I felt very intimidated and so forth by [their] knowledge levels and everybody came on and tried to reassure that I would cope. And I think I have coped.”

Social engagement provides an avenue for the community to respond and sustain its members despite external pressures. The competing demands on teachers are one of the reasons why engagement in PD over time is difficult to sustain. However, in this case study the online learning environment supported the participants by being both emotionally receptive as well as flexible in its deadlines. This kind of support is essential in facilitating and sustaining mutual engagement.

The facilitator also played an important role in sustaining engagement. The facilitator acted as a community broker, helping participants to shift their trajectories towards increasingly centripetal practices. When participants were absent from the course for a period of time the initial process of rejoining the community was often facilitated by the timely intervention of the facilitator, usually in the form of a direct e-mail summarising the most recent activity in the course and how they could join in. Also the facilitator was seen as a force for motivation and encouragement: [he was] always there to give feedback, to
give support, to just motivate people and keep them going.’ This reaffirms that engagement is social and purposeful as well as experiential and discursive.

Unlike traditional PD which focuses on skill based engagement, the community cohesion model argues that mutual engagement is more than achieving task goals, it provides the social environment in which communities can form and in which practice and identity can be negotiated. According to the community cohesion model it is essential that participants are given opportunities to do things together.

**Joint Enterprise**

Unlike traditional professional development the community cohesion model does not assume that participants will accept the goals and values of the course designers. In contrast, joint enterprise is a process of responding together to challenges, expectations, and goals usually prescribed by external forces. Joint enterprise does not mean that the community members must accept those goals, but rather they negotiate commonalities in their response to those demands. This is both an attribute of community membership as well as a socially dynamic process by which members can explore their practices and identities. The more the members are invested in joint enterprise then the more likely it is that situated learning will occur. In the pre and post face to face questionnaires the participants stated that their motivation for doing this course was a desire to broaden their teaching practices and improve student engagement. However, when interviewed at the end of the course all five participants recognised this desire but cited accountability to each other as the ongoing motivation for participation.

The participants had invested themselves in ‘supporting their fellow community members.’ However, this joint enterprise was not imposed, rather it was encouraged by careful course design and facilitation. For instance, all the participants cited the initial face-to-face day as having a significant impact on establishing ‘commonality’.

'We got to have a chat and got to see not only the teacher side of people but also … the sharing side of people and what’s been happening in people’s lives and that sort of thing and there’s that camaraderie that’s established, that commonality of purpose.'

The course participants agreed that the face to face training day helped to establish that despite their different backgrounds and skills they were asking themselves the same question ‘how can I use this to improve my teaching?’ Rather interestingly the same teacher also related how at one point she felt guilty about participating too much.

‘You’d read the [social forum] and eventually there’d be someone saying it’s pretty hectic at school and I’d think maybe I’m giving too much time to this. You know because there’s just my messages there and maybe I should be doing school work instead like these other teachers.’

This highlights the point that joint enterprise is a socially dynamic process being constantly renegotiated by the community members. Consequently, community cohesion is partly governed by a consensus of what is important and what is an appropriate response. This has a significant implication for course design and facilitation. In other words, the curriculum, pathways and outcomes cannot be completely prescribed. In itself this is a fundamental challenge to all PD designers, trainers and funding bodies.

**Shared Repertoire**

Shared repertoire is more than sharing strategies. Unlike traditional professional development the community cohesion model sees the sharing of ideas and strategies as being a process of negotiating not just practice but also identity. When a member relates an experience or explains a solution they are negotiating the legitimacy of their practice and identity. One teacher described how she sometimes posted messages on the discussion forum but then immediately deleted them, she explained, ‘I didn’t want to come across sounding silly and some of the things that were written [by the others] were really good.’ Consequently the teacher developed a strategy ‘often, I’d think really carefully before [posting]. I’d do a bit more reading and back myself up and then stick something on the [forum].’

This highlights the issue that shared repertoire is not only about negotiating practice but also identity. One teacher commented: ‘you feel as though you have to meet a certain standard and if you don’t meet that standard then you could be judged as lacking and I don’t like to ever feel like that.’

However, it is important to note that the standard or legitimacy of practice is negotiated by the community members themselves as opposed to being defined by the course facilitator or course designer.
I actually felt a little bit intimidated by her to start off with because she knew so much… she was making all these comments and I thought oh my God, I feel like a real dunce in comparison to what she said!

The participants valued shared repertoire or as one teacher commented: ‘I needed the other participants to act as a sounding board… just having that other person’s point of view, helps me look at it in a different light or understand it better.’ Another participant agreed: ‘they’re really important in the same way that peers are important in anything else, they give you validation.’ Clearly both practice and identity are being renegotiated through the interdependent processes of mutual engagement, joint enterprise and shared repertoire.

Community cohesion was also being promoted by the sense of ownership or boundary formation arising from these processes. One participant stated: ‘although [the trainer] was very approachable we still felt that… we could do this, we could do it ourselves.’ Here, the course facilitator was positioned on the boundary of the centrifetal practices of the community. This can be explained by the community cohesion model illustrated in Figure 1. Increasingly mutual engagement, joint enterprise and shared repertoire forms a cohesive community both in terms of practice and identity, and consequently defines both membership and what is legitimate participation in that community.

CONCLUSION

This article has attempted to demonstrate how the community cohesion model (see Figure 1) can be used to inform the design of a small scale, mixed mode PD course with the aim of sustaining teacher participation over time. The community cohesion model, based on Wenger’s (1998) Community of Practice, proposes that a community is sustained when teachers work together (mutual engagement) responding to a common need (joint enterprise) and consequently share their ideas, stories, experiences and skills (shared repertoire). This process is as much a transformation of identity as of practice.

The results of this case study indicate that the teachers not only participated for more than twice the minimum time but also that they were invested in mutual engagement, joint enterprise and shared repertoire. In particular, the research indicates that the face to face training and the social discussion forums were significant in facilitating mutual engagement. In addition, the course facilitator played an important role as a community broker, helping participants to re-engage and to shift their trajectories into more centrifetal practices. Joint enterprise, as seen in the high levels of commitment or accountability to each other, was facilitated by the negotiable course goals. And finally, shared repertoire was highlighted as having a significant role in exploring identity and practice.

The results of a second case study comprising secondary school teachers from the United Kingdom is currently being analysed. A third, larger scale study is currently being undertaken in Australia. Initial results in both studies appear to confirm the validity of a community cohesion model in designing for and explaining sustained engagement.
REFERENCE LIST


