

Facilitated networking and group formation in an online Community of Practice

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ABSTRACT

In, 2008 and 2009 a series of online professional development communities for groups of teacher-leaders in digital pedagogy was run. In each of the first two iterations, there was an early dropout of individuals who felt they 'did not belong'. Contributing to this sense of isolation was the immediate emergence of online networks in the introductions forums. These networks grew between individuals who were either more extrovert online communicators, or who had pre-existing networks that were re-connected through community membership.

In subsequent communities, a social networking approach to pairing and grouping teachers was taken. The results indicated that the targeted group of individuals in the paired groups felt comfortable, welcome and supported within the community. In all groups in which the partnerships were established, there were no early cancellations of enrolment.

In this paper I argue that it is likely that a group of individuals in an online environment community through either facilitated or non-facilitated networking with a small group/individual focus can successfully develop the potential to support engagement in community activity with a whole-group focus. I also contend that it is critical to distinguish networking activity from episodes of community formation, as the purposes and goals of each of these activity types are quite different.

INTRODUCTION

Collective participation in professional development can promise debate and improvement of understanding, leading to a shared culture in a Community of Practice (Garet, 2001). A crucial characteristic of online Communities of Practice (CoP) is the support of the relationships that enable mutual learning in spite of separation in time and space (Wenger, 1998; Wenger et al, 2005)). Togetherness is generated and experienced by individual members, thus individual connectedness is essential for community formation. Despite the body of research into CoP, there is little insight offered in the literature about the early stages of CoP development, with the few studies being conducted on mature communities (Schwen & Hara, 2003). This study focuses on those early stages of community formation.

A CoP is characterized by the active negotiation of meaning (the practice) by participants (Wenger, 1998), a joint enterprise within the 'conditions, resources and demands' that define the collective and their negotiated outcomes. Thus, a distinction is drawn between CoP and community. For the purposes of this paper, the group in question will be referred to as a community since it focuses on early development stages rather than a fully-fledged CoP.

Emerging research identifies a need for caution about the enthusiastic use of the constructs of CoP in online communities, case studies showing that community building is not necessarily a given result of online activity (Schwen & Hara, 2003). This critique has been extended to a suggestion that the resulting pattern is better described as 'networked individualism', created through the interaction of offline and online sociability (Castells, 2001). Social networks thus formed may or may not result in the emergence of online CoP with a group focus (Castells, 2001). The underpinning rationale for this

changing vision of online learning is the shift away from traditional collaborative approaches, and towards individualism, democratic approaches and differences in values or interest (Hodgson & Reynolds, 2002; Jones, 2004).

Within this climate of tension between the CoP and Network models of online learning, there is some acceptance that the two are not mutually exclusive. The potential has been identified for the co-existence of social networks characterized by weak ties of companionship and social support, and communities in which a shared set of values and interests exist which support frequent information exchange, social identity and a sense of belonging (McConnell (2006); Wellman, as quoted in Castells 2001: 127). The value of networking identified by these authors is purely for social support, with insufficient emphasis on networked learning. However, Dron and Anderson (2007) identified a common learning purpose of both networks and communities, explaining differences as ones of granularity.

- The greatest social granularity and least cohesive group is identified as a *collective*, which is emergent, not designed, but often offers an entry point into more intense networks and groups.
- Less granular is the *network*. The clustering, linking and interaction that occurs within and between networks creates a structure and form that aids functioning and organizing of the distributed individuals.
- The most tightly formed, usually temporally bound collective is described by them as a *group*,



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which gathers to undertake a task or tasks together, thus functioning as a community of practice.

Collective and individual need dictates migration through all three entities depending on changing purpose (Dron & Anderson, 2007). The acceptance of individuals into emergent collectives is the initiation point of networks which may cycle into communities from which a CoP may emerge. The characterization of these CoPs involves mutual engagement, joint enterprise and a shared repertoire (Wenger, 1998). Whilst research has focused on one or other, there is little research available that focuses on the cycling of networks and community of practice within an online learning community. In addition, there is little research that studies the early stages of networking and the establishment of a sense of community identity and which interrogate the silences and attrition of participants in the early days of online activity. If online design and facilitation acknowledges the phases of group interaction, the potential exists to better understand absences, silences and vociferous argument.

In a CoP, silences are identified as legitimate peripheral participation, which is practiced by learners who observe from the side, and gain both explicit and implicit knowledge through that process (Brown & Duguid, 2000; Lave and Wenger, 1991). In an online CoP legitimate peripheral participation (LPP) (Lave & Wenger, 1991) can result in limited interaction with facilitators and other students (Wilson & Albion, 2009). However, in a community with common entry levels of expertise, explaining participant silence as LPP is not necessarily useful, with unclear classification of roles as master and novice. In particular, the concept of LPP fails to identify the reasons for initial non-participation where it can be assumed that learning has not yet commenced. The documented benefits of collaboration for satisfaction and effective learning (Vygotsky, 1978; Wilson & Albion, 2009) create an identified need to stimulate collaboration in online communities (Hummel et al, 2006).

Genuine barriers to participation in virtual communities exist, which include difficulty forming relationships (Ardichvili & Westling, 2003; McConnell, 2006). The potential lack of local, social support in the immediate environment of online learners can leave participants highly dependent on online support networks and relationships. (Haythornthwaite, 2005).

Bonding and relatedness appears to be a core need of all individuals (Huitt, 2004; LaPointe & Reisetter, 2008), poignantly highlighted in Sia Vogel's Blog posting. (Vogel, 2008) reflecting on a collaborative online event:

It was of no importance that I was there. I felt not seen and not heard, I had nothing to say. ..I had the feeling that all the other participants knew each other very good, and for a long time (I know it's not so, but I felt that way!) ... Oh yes, I do learn, that's no problem! But I miss the feeling of really being connected to the other learners. It was of no importance that I was there.

For some participants, a support and social network

provides a sense of feeling valued and supported in the community of learners (LaPointe & Reisetter, 2008). Where online interaction occurred, of particular advantage was restricted online communications:

I found the interaction more intimately personal as it was on a one-to-one basis. You shared thoughts with one person at a time instead of a group. (LaPointe & Reisetter, p. 650)

This need can be modified by temperament or attribution style (Huitt, 2004; LaPointe & Reisetter, 2008). Online communication can potentially impact poorly on individuals who are less extroverted, and with a lesser sense of community belonging (Kavanaugh et al, 2005). Quantitative findings that Keirsey temperament type had no influence on satisfaction and learning of online students (Neuhauser, 2002) potentially hides the experiences of the extremes, who either valued the independence or found frustrating the social isolation in online environments (LaPointe & Reisetter, 2008). Identifying the needs of the small group of individuals for whom online community is valuable is a research priority (LaPointe & Reisetter, 2008). In light of this, a re-examination of the influence of temperament on the feeling of connectedness in a community is warranted. Keirsey temperament types (Keirsey, 1998), drawn from Myers Briggs personality types, are a useful four-way classification of individual preferences that support understanding of their interaction styles.

The typical attributes of individuals (Keirsey, 1998) with interaction preferences of each temperament type are summarized in Table 1.

Table 1-Typical attributes of Keirsey temperament types

Temperament Type	Typical attributes
NT	Future-focused, strategic, analytical independent thinkers. Value knowledge, like models and theory, science and technology; seek objective justice and fairness; mastery of any topic; value competence more than interpersonal values.
SP	Realistic and present-focused, impulsive hands-on and fun loving go-getters; spontaneous; love doing a variety of things; problem-solvers and negotiators; need and value immediate feedback; physically active; optimistic.
NF	Imaginative, future-focused, authentic and empathetic catalysts for growth; seek harmony, approval and cooperation; decisions based on feelings; supportive of others, trust inspiration and intuition.
SJ	Honour duties and responsibilities; obey the laws, follow the rules, and respect the rights of others; past-focused, responsible, traditional, service-minded practical people; value routine, predictability, authority and rules; don't enjoy change and "the unknown".

From this data, differences in the needs of, and the ways that individuals potentially engage in learning and interaction are apparent. This increases significantly the complexity of online design and facilitation. Understanding the links between context, temperament and the need for relationships and bonding in an online CoP may clarify how inclusive design principles can be employed in online communities.

BACKGROUND

The 10 week facilitated, online community studied is subscribed to by Queensland teachers seeking professional development, which supports a leadership accreditation process. Over two years, the number of iterations is six in all, managed and run by two facilitators in separate course shells in that period of time.

In the first weeks of the first iteration of the community, a number of participants left, generally citing as the reason a sense of not belonging and isolation within what appeared to them to be an existing, well-connected network of teachers. The response to this was to partner participants for early activities in the second iteration. However, similarly this strategy did not reduce the dropout rate. It also led to some conflict and argument between some partners.

Refining this strategy, in following iterations of the community, partnerships were established based on attribute similarities. The purpose of this study is to investigate whether this led to an enhanced sense of 'belonging', leading to greater interaction and networking in the community. If an online collective cycles through networking and community activity then the development of networking relationships should be pre-dispositional to the development of a strong community. An additional purpose was to investigate if the strategy had the potential to reduce early participant dropout. The final purpose of the study was to identify the characteristics of individuals most at risk of early cancellation of enrolment due to early isolation.

METHOD

Participants were asked to complete an 18 question survey on course enrollment. This solicited a broad selection of personal, workplace and contextual information including the participant's Keirsey Temperament type, drawn from an online Myers Briggs typology test provided by Humanmetrics (nd).

The methodology used in this research was a variant of social network analysis. Characteristics of the participants were used to create an 'attribute network' in which the strength of ties between individuals could be identified. The software used to assist data collection and analysis was NodeXL. Partnerships based on the strength of attribute ties were created, within which the first weeks of community activities were undertaken. A whole-group network diagram demonstrating the strength of individual links to all others in the community was made available to all participants to inform future networking choices.

In the first three weeks, partnerships were asked to collaboratively negotiate solutions to content-related issues. In Week 4, participants were asked to submit a PMI chart based on initial experiences. The qualitative data thus collected was categorized for analysis. Teleconferences were held in Week 6, and were recorded with information about learning partners and feeling of inclusion transcribed and categorized.

At the end of the 10 week facilitated community, participants

were asked to complete an evaluation survey which included not only likert and open-ended questions about general satisfaction with the community (including facilitation, learning experiences, content and personal growth), but also questions about the value of the 'buddy' partnerships throughout. Responses were collated and categorized for analysis.

Of the 41 participants in two groups of teachers studied, 32 provided informed consent for the use of their data which was then used. The response rate to the first survey was 100%. 14 PMI charts were received, equating to a 44% response from participants. The evaluation survey was completed by 20 participants, a response rate of 63%.

While this response rate was typical of online surveys (LaPointe & Reisetter, 2008), it still represents a broad coverage of the participants. It is likely that participants with no concern either way were the ones who did not return surveys, and had a strong sense of comfort.

Data from all sets was triangulated to increase robustness of the study and its findings. The collated and analyzed data was shared between the two facilitators to ensure accuracy of transcription and interpretation.

RESULTS AND DISCUSSION

Attribute Diagrams

Network diagrams were created from attribute adjacency tables resulting from data collected in the first survey and used to establish partnerships.

Figure 1 shows links with edge weight (links showing shared attributes) of 12 or more. Using this diagram, individuals 10 and 3, and 8 and 12 were partnered respectively. Figure 2 shows links with edge weight of 11 or more. New partnerships that emerged from this diagram are Persons 4 and 6. At an edge weight of 10 (shown in Figure 3), partnerships between persons 11 and 5, and 6 and 4 were created. Difficulties arose when individuals well-connected to another (example persons 10 and 3) are connected to others who have no strong connections (such as individuals 7 13 respectively). The decision was made to break the partnership of 10 and 3, and partner 3 with 13, and 10 with 7. This strategy was followed until all individuals were partnered.

Figure 1: Attribute diagram with edge weight of 12

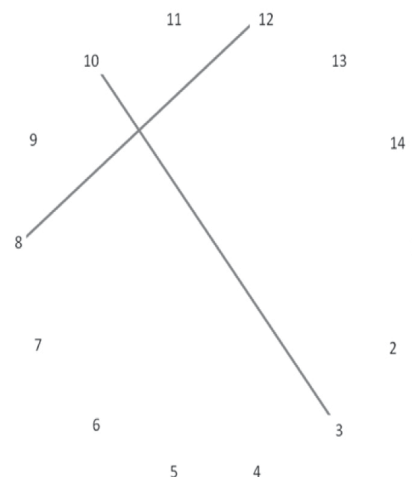


Figure 2: Attribute diagram with edge weight of 11

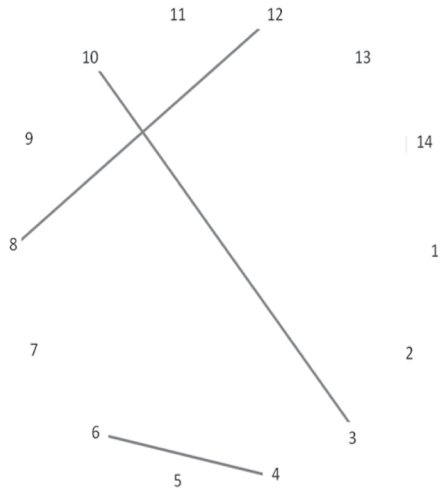
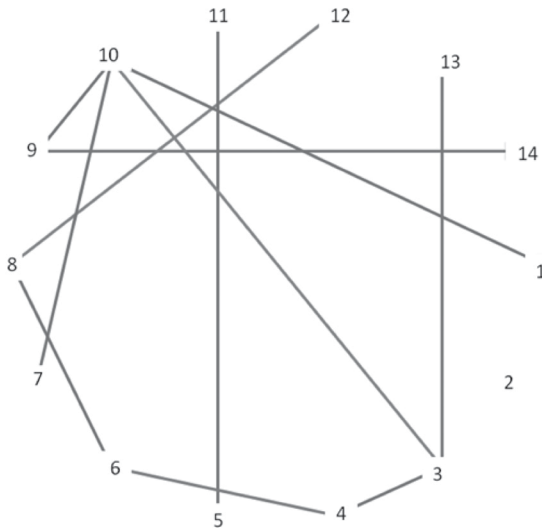


Figure 3: Attribute diagram with edge weight of 10



Participant Profile

The breakdown of participants in the community is summarized in Tables 2 and 3.

Table 2: Teaching and Leadership Context of Participants in the Community

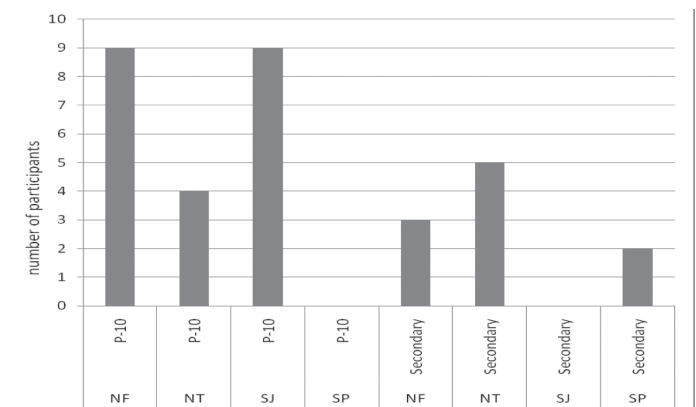
Teaching area	n	Leadership position	
Early childhood/primary/P-10	20	Informal	10
		Promotional	4
		ICT leader	6
Secondary	10	Informal	3
		Promotional	7
		ICT leader	0
Distance	2	Informal	2
		Promotional	0
		ICT leader	0

Table 3: Age Distribution of Participants in the Community

Teaching area	n	Age Bracket	
Early childhood/primary/P-10	20	25-35 yrs	4
		36-45 yrs	6
		46 + yrs	10
Secondary	10	25-35 yrs	5
		36-45 yrs	4
		46 + yrs	1
Distance	2	25-35 yrs	1
		36-45 yrs	0
		46 + yrs	1

Leadership was identified as informal, recognized digital pedagogy leaders, and leaders in promotional roles (eg Head of Department, Deputy or Principal). Two thirds of the participants were primary school teachers, half of whom were informal leaders in digital pedagogy across their teaching context. In contrast, only 20% of the secondary teachers are informal leaders. All of the recognized digital pedagogy leaders were drawn from the primary sector, totaling 35% of primary teachers. 20% of the primary teachers were in promotional leadership positions compared to 70% of the secondary teachers. Of concern are the relative ages of primary digital pedagogy leaders, 50% of whom are 46 and older, raising questions about the relative uptake of digital pedagogy in younger teachers.

Figure 4: Temperament of participants



Data in Figure 4 indicates that the dominant temperaments of primary teachers in this ICT leadership pool are NF and SJ, together representing 75% of participants. The balance is different in secondary schools, with 50% being NT. In considering this data, recalling that these teachers are all self-nominated as ICT leaders in their contexts, it could be concluded that NF and SJ teachers in primary schools, and NF and NT teachers in secondary schools are most likely to identify their own leadership roles.

This is better understood when the leadership roles are taken into account, with Figure 5 showing the distribution of temperament type

against leadership role in primary and secondary schools. It could be suggested that the definition of 'leadership' varies significantly in a hierarchically flat primary school when compared with a secondary school with a strong leadership hierarchy. It is also strongly suggested that individuals who are NT-types, exhibit stronger prototypical traits as organizational leaders, particularly in secondary schools.

When temperament is analysed against age, as shown in Figure 6, the data indicates that all but one of the older teachers are NF temperament type, and are women with older or grown children who have returned to work after an absence; they all identified their goals as altruistic in interviews.

It is reasonable to assume that individuals in promotional positions have well-developed communication and networking skills, whilst some of the highly-skilled informal leaders may have greater difficulty in this area. This is evidenced in the dominance of individuals of type NT in leadership in secondary schools.

Figure 5: Temperament of teacher leaders

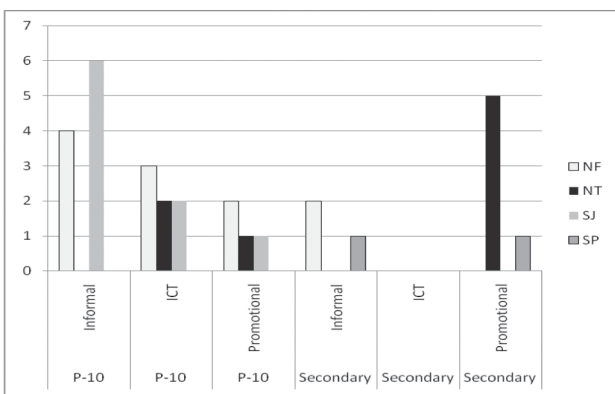
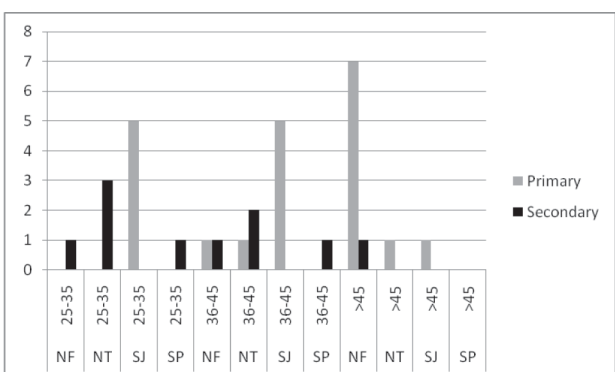


Figure 6: Temperament against age of teacher leaders



In conclusion, it is evident that across both primary and secondary schools, teachers in informal leadership positions appear to be predominantly NF and SJ temperament types. It could reasonably be predicted that because NF's value relationships and harmony, and SJ's value strong support structures, that in an online environment, these are the individuals most likely to suffer anxiety. In addition, because these individuals are less likely to be formal leaders,

they may lack the networks and possibly networking capacity of those in formal leadership. The next section analyses survey data from participants about the value of the Buddy in supporting a sense of 'belonging' to the community in the critical first weeks of operation.

Partnership and Belonging - Quantitative Data

Table 4 shows that 12 of the 19 respondents agreed that the partnership was important in feeling a sense of 'belonging' in the first weeks of the community. Whilst the whole of the group is not represented in this data set, this still results in 28% of the total number of participants and 39% of those participating in the study.

Table 4: Value of Buddy (number of respondents) (n=19)

	Strongly disagree	Disagree	Neither	Agree	Strongly Agree
I felt welcome in the community	-	-	-	7	12
Buddy important in feeling 'belonging'	1	1	5	7	5
Buddy an important factor in my remaining in community	1	2	5	6	5
Received support from others in the community	-	1	3	9	6
More confident about leading pedagogical shift	-	2	-	9	7
Developed networks	-	2	1	12	4

84% of respondents agree that they extended their networks through the community, 79% of whom acknowledged the support provided by others. It is reasonable to assume that many individuals had no need of the social support offered, evidenced by the survey return of only one of the secondary teachers in a promotional position.

Three of the participants, who identified themselves as not highly sociable, valued the welcome and support of their buddies despite drawing minimal support from other colleagues. At risk of being isolated, they actually developed strong networks within the community. This data indicates that the partnerships were valuable in retaining members and developing their connection to others. Of value in future research would be the identification of 'bridging' individuals, and investigation of their role in linking others to the rest of the network through social network analysis.

Tables 5 and 6 show the characteristics of participants who strongly agreed, or agreed (respectively) that the partnerships increased their confidence to remain in the community.

There is no consistent pattern of characteristics evident, possibly due to limited numbers; however it is clear that primary, informal leaders with temperament types of NF and SJ are over-represented in this group. This supports an earlier hypothesis that this group is most vulnerable to insecurities in an online course. What is also clear from this data is that the strategy of using participant matching to support early networking was highly successful with this group of teachers.

Participants 8, 5 and 18 were the only participants who felt that they did not develop strong networks during the community's opening weeks. All, however, acknowledged large or extensive existing networks on entry to the course.

Participation in the first three weeks of community-focused activities was strong, with an average of 90% participation across the groups. Overall, satisfaction, shown in Table 7, was high, and the activities and structure supported high quality

Table 5: Participants who strongly agreed that buddy increased confidence to remain

Person	Gender	Confidence entering community	Teaching Area	Leadership position	Temperament	Current network size	Age bracket (years)	Teaching location	Highly Sociable
1	F	Yes	Primary	Informal	NF	Medium	46+	Coastal	No
2	F	Yes	Primary	Informal	NT	Medium	35-45	Regional	No
3	F	No	Primary	Informal	NF	Small	46+	Regional	No
4	F	No	Primary	Informal	NF	Small	35-45	Coastal	Yes
5	F	Yes	Secondary	Promotional	NF	Extensive	35-45	Regional	No

Table 6: Participants who agreed that buddy increased confidence to remain

Person	Gender	Confidence entering community	Teaching Area	Leadership position	Temperament	Current network size	Age bracket	Teaching location
6	F	Yes	Primary	Informal	SJ	Extensive	45+	Coastal
7	F	Yes	Primary	Informal	SJ	Good	25-35	Coastal
8	F	Yes	Primary	Informal	SJ	Good	36-45	Coastal
9	F	Yes	Secondary	Informal	NF	Small	45+	Coastal
10	M	Yes	Primary	ICT	NT	Small	25-35	Coastal
11	F	Yes	Primary	ICT	SJ	Medium	25-35	Coastal

When linked to previous data indicating that most of the older, female NFs have returned to teaching after raising families, the pattern becomes clearer. All but two of the group identify themselves as not highly sociable, thus the value of partnerships in supporting individuals becomes evident. The development of strong networks for all but three of the participants is indicated, supporting the hypothesis that the partnerships would support network development, themselves a predisposition to strong community building.

interaction – a core outcome of a functional CoP. Strong outcomes in professional growth, confidence in leadership and developing a vision resulted. Whilst this is not entirely independent of community design and facilitation, the contribution of other participants is clearly acknowledged. It can be concluded thus that the partnering of participants leads to stronger networking ties between them, and through this creates fertile ground for the formation of a CoP.

Table 7: Participant response to end of phase survey

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I felt welcome in the community	-	-		7	12
I was happy with the quality of learning and resources	-	1	3	7	8
I was happy with the quality of feedback I received on my ideas	-		3	4	12
Activities and materials catered for my learning preference	-	1	2	8	7
As a result of community membership, I feel more confident to contribute as a leader	-	2	-	10	7
The community as PD was valuable	-	1	-	10	8
The support from facilitators was valuable	-	1	-	5	13
Activities and conversations helped me establish future directions in my leadership context	-	-	4	8	7

Partnerships and Belonging: Qualitative Data

Participant responses to the PMI, the teleconferences and the end of phase survey were analyzed and organized into emerging themes of community and network development, and the importance of the partnerships and community formation.

Social value of partnerships ('buddy')

A small set of partnerships were not effective due to "unforeseen family circumstances" and "outside commitments".

However, as identified in the quantitative data, the balance of partnerships were successful, with ease of communication: "(My partner) is great and is very easy to chat with" and affirmation of the selection procedure: "our learning buddy combination is spot on." The value of the buddy in supporting the development of social networks was identified: "my buddies are brilliant (time for another coffee?)" and "great learning buddies and I'm looking forward to catching up with them soon." The benefit of "being partnered with a buddy to chat with and share learning experiences" was identified, together with the value of a buddy in providing social support: "Interesting that others are feeling overwhelmed too ...I thought I was the only one; a plus that I am not the only one feeling (this way)."

In supporting this sense of inclusion and belonging, the socialization needs of participants, as a condition necessary to support community building were provided for. This set the groundwork for mutual engagement (Wenger, 1998) through relationship building. In the early phases of community building, these relationships were identified as being critical to a sense of belonging by a small but significant group of individuals. It is acknowledged that for many, this partnership was not an essential factor in community engagement. It can be hypothesized from Tables 4 and 5 that individuals with NT temperament types are relatively self-supporting in this respect. With only two participants of SP temperament in all of the iterations of the community, conclusions about the needs of this group are unable to be reached.

Learning value of buddy

Participants identified the value of a partnership for learning despite early misgivings by some: "I was actually hesitant about working with a buddy, but it has proved very useful." Learning partnerships were identified: "(my buddy) helps me clarify my thinking" in which "new stuff (was learned) ...we bounce ideas off each other which is great." Partnerships were also identified as supporting networking by "increasing my network and broaden the (learning) experiences within it with my buddies", thus "increasing and enriching ...relationship(s)." Partnerships were valuable in exposing participants to new learning: "I learn new stuff thanks to my learning buddies, I've been playing with (new tools)", and participants found it "interesting working with a buddy, gives the chance to explore twitter etc".

Supportive also was the fact that the "learning buddy keeps me on track (and) helps me share (my) understanding of theories among the group".

Beyond organizational support, participants thus identified clarification of thinking, interchange of ideas, new thinking tools and shared understanding. In addition, participants identified the networking enabled by the partnerships. When considering Wenger's (1998) emphasis that the level of discourse is a critical element of a CoP, the role of partnerships in enhancing networked discussions and collaborative learning is of significant importance in facilitating the shared practice that typifies a CoP.

Value of Networking

For some, "these sort of courses can be the only chance to communicate to others in the field", with many identifying as a plus "the communication and networking ... with other teachers in similar positions and with similar interests ... willing to share ideas and experiences freely".

“Reading what everyone else is up to gives me ideas and inspiration to try new things ... think about some strategies I could be doing but don’t”. The online and offline discussions were valued for learning *“Constant discussion about learning theory and thinking strategies to develop a deeper understanding”.*

As one of the seven principals for design of CoP’s, Wenger et al (2002) identified design for evolution. The evolution of partnerships into the greater networks identified by participants, reflected the evolution of the growth of the CoP through network formation. The critical discourse that was enabled through networking supports strongly its impact on mutual engagement and joint enterprise (Wenger, 1998), demonstrating the importance of strong networking in developing essential elements with the potential to lead to CoP development.

CONCLUSION

It needs to be acknowledged that at the time of publication, full expression of a CoP had not occurred, although subsequent results indicate a growth in the unfacilitated exchange of ideas and information. The ultimate focus on individual accreditation in this context remains a barrier to fully fledged development of a CoP. However, the focus of this research was on the early stages of community building, and is thus relevant to a number of contexts, including those with the goal of forming a genuine CoP.

When considering retention, the partnership was important in feeling accepted by the community for many of the participants, which contributed to their decisions to remain in the community. The partnerships were reported by participants to result in additional networking, enhanced learning and stronger community membership, congruent with Dron and Anderson’s (2007) taxonomy. It can be concluded from the analysis of the data that the establishment of networks through partnerships (LaPointe & Reisetter, 2008) as an approach to the formation of a CoP is a sound strategy worthy of further investigation.

While the sorts of individual characteristics that may predispose a person towards a feeling of separation from the community is not clear based on these limited results, there were indications that more introverted, older primary teachers with NF or SJ temperaments are more vulnerable, particularly those whose leadership style is informal. The attributes identified in temperament theory (Keirse, 1998) are consistent with the findings. The challenge for NF individuals is to support a need for empathy, support and trust whilst for SJs support in a climate of challenge and change is essential (Keirse, 1998). Whilst the identity and characteristics of all individuals at risk may remain difficult to pinpoint, what is clear from this study is that strategies used by facilitators that supported entry to the social network, and thus to the evolution of a sense of community (Wenger et al, 2002), are critical. As identified by Schwen & Hara (2003), understanding the early stages of CoP formation is critical and may lend understanding to the processes involved.

The learning and support needs of other temperament types are also worthy of further investigation.

This study supports the idea of strong relationships between collective, network and group with the potential to enable CoP development (Dron and Anderson, 2007). The current study showed that a strong identification with and belonging to the community resulted in lower attrition, and according to participants, greater learning and networking. The community in question was designed to have episodes of co-construction (community activity) and episodes of individual learning (networking and collective) with a resultant participation of 90%. Understanding the design features that support community rhythm (Wenger et al, 2002) is a priority research area.

Future work that examines more closely the impact of activity design and aligned with Wenger’s seven principles (Wenger et al, 2002) will add to our understanding of how to facilitate the formation of rich community practice that is supported, but given the space to self-structure (Hummel et al, 2006). The impact of early socialization on community formation of networks and community is also worthy of further investigation in future communities. Finally, a focus on how networking and community belonging contributes to the development of the strong ties that lead to the development of a CoP is merited, together with clarification of the role of bridging individuals in the group.

BIOGRAPHY

With a B.Sc. Dip.Ed., WENDY FASSO was a Teacher of Science and Maths across a number of secondary schools in Queensland. Recognizing the value of ICT to enhance learning, she moved into adopting new pedagogies in her classroom. She completed an MEd (Educational Technology) in 2006, and became an ICT leader in Queensland, facilitating and moderating the online ICT Pedagogical Licence - Wendy was one of the first two people to gain an Advanced Pedagogical Licence (now Digital Pedagogy Licence Advanced). She taught online for USQ in 2006/2007/2008, and became a full-time lecturer at CQUniversity.

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