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DESIGNING FOR ONLINE LEARNING COMMUNITIES

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Abstract

This paper investigates the development of sense of community among learners engaging in online learning where the principles of collaborative learning are considered key instructional strategies. In particular this paper explores the development of learner's sense of community as an outcome of engaging in instructor initiated activities that are intended to promote community development. The paper discusses design principles for the development of sense of community identified in contemporary literature. In addition it reports a case study that sought to identify the forms of engagement and activity that promote community development, the manner in which students responded to these and the resulting sense of community.

Introduction

It is becoming increasingly recognized that the social phenomenon of community may be put to good use on the support of online learning (Bonk & Wisner, 2000; Hiltz, 1998; Palloff & Pratt, 1999; Rovai, 2002). It has been suggested that the formation of a learning community must be a primary goal of online instructors (Hiltz, 1998). This suggestion is well supported by theories of learning that highlight the importance of social interactions in the construction of knowledge (eg. Bruner, 2001; Dewey, 1929; Kafai & Resnick, 1996; Vygotsky, 1978). However, the process for developing such a community remains largely unknown (Bonk & Wisner, 2000; Palloff & Pratt, 1999).

This paper describes a study that sought to identify the forms of engagement and activity employed by an experienced online instructor to promote the development of a learning community, the manner in which students respond to these and the resulting level of community developed. The purpose of this study was twofold; firstly to identify practical strategies that may guide instructors in the development of online learning communities and secondly to contribute to the growing knowledge base regarding the design of online learning communities.

Understanding Community

While a definitive definition of community remains elusive (Puddifoot, 1996) a number of generally accepted characteristics have been identified. Community exists in both geographic and relational sense (Gusfield, 1975; Worsley, 1991) and in the online environment (Surratt, 1998), community may have many referents (Sarason, 1974) and

individuals may choose to belong to more than one community at a time. It is recognized that community is central to the lives of all individuals (Palloff & Pratt, 1999; Puddifoot, 1996 p. 327). The benefits associated with community membership are diverse and include an increase in intellectual capital (Stewart, 1997, and increase in social capital including the norms of reciprocity (Putnam, 2000 #48) and the satisfaction obtained through membership (Lott & Lott, 1965). Each of these factors contribute in some way to the social phenomenon of community where the sum of the parts is in some way greater than the whole (Hawley, 1950) a phenomenon that may be put to good use in the support of learning.

Community is a sense rather than a tangible entity (Wiesenfeld, 1996). This sense of community has been defined as 'a sense that members have a belonging, members matter to one another and to the group and a shared faith that member's needs will be met through their commitment to be together' (McMillan & Chavis, 1986p. 9). Sense of community has been represented as a four dimensional framework comprising the elements of membership, influence, fulfillment of needs and shared emotional connection (McMillan & Chavis, 1986) providing a framework for investigating the development of online learning communities. It has been suggested that these elements will be present to varying degrees in online learning communities (Brook & Oliver, 2002)

Building learning communities: Contemporary literature and influencing factors

It has been suggested that the instructors role is pivotal in the development of an online learning community (Collins & Berge, 1996; Hiltz, 1998; Palloff & Pratt, 1999). Influencing factors at the instructor level include online experience, pedagogic approaches, technical expertise, communication style and perception of self. In their study of online learning communities Palloff and Pratt (1999) identified general agreement on seven basic steps online instructors may take in the development of online learning communities. (Table 1).

Table 1: Seven Basic Steps in the Development of an Online Community

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1. Clearly define the purpose of the group
 2. Create a distinctive gathering place for the group
 3. Promote effective leadership from within
 4. Define norms and a clear code of conduct
 5. Allow for a range of member roles
 6. Allow for and facilitate sub-groups
 7. Allow members to resolve their own conflict
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Further suggestions include creating meaningful and evolving membership profiles, promoting cyclic events and integrating the rituals of community life (Kim, 2000). Impetus may be gained through facilitating the human elements of community (Hiltz, 1998; Palloff & Pratt, 1999), regular communication (Moore & Brooks, 2001; Tönnies, 1955) and emphasising the benefits associated with becoming a community member (Lott & Lott, 1965; McMillan, 1996). The importance of encouraging student participation, making material relevant and the role of instructor in weaving student communication was stressed by (Hiltz, 1998). And a five stage model including access and motivation, online socialisation, information exchange, knowledge construction and development was suggested by (Salmon, 2000).

The development of sense of community is in many ways dependant on the expectations, experiences and personality traits of the individual student (Lounsbury & DeNeui, 1996). Some influencing factors include the benefits individuals receive as a result of their membership. Benefits may include what individuals are able to give to the community, what the community gives them in return and the satisfaction obtained from membership (Lott & Lott, 1965). Online experience and level of education (Hiltz, 1997) as well as technical skills

(Collins & Berge, 1996) have been identified as influencing factors. So to have aspects of socialisation such as culturally influenced perceptions of self as either *separate* from others or *connected* to others (Gilligan, 1982) and socialised approaches to communication based on either a need for connection or status (Gougeon, 2002). These patterns of socialisation, which tend to be gender based (Belenky, Clinchy, Golberger, & Tarule, 1986; Tannen, 1990, 1994, 1995), suggest that students adopting the socialised female role are more likely to seek membership to learning communities than their socialised male counterparts.

Regardless of the strategies employed by the instructor the decision to join a community appears to rest with the *will* of the individual. It has been suggested that *will* falls into two categories, *natural will* which is associated with the temperament, character and intellectual attitude of the individual and *rational will* which is associated with rational decision making (Tönnies, 1955). It has been demonstrated that in situations where indifference or antipathy are the norm individuals have exercised rational will to form a community with purpose as the binding factor (Tönnies, 1955). The presence of natural will may explain why some students seek to form learning communities with little intervention from the instructor. While the existence of rational will suggests that it may be possible to encourage the formation of a community where students would not normally choose to do so. This study sought to identify the forms of engagement and activity employed by online instructors that both support students' natural will and prompt rational will to form community.

Methodology

Given the dual focus on both the practical application of research findings and the development of design principles, the study adopted a *use-inspired* basic research approach (Stokes, 1994). The context specific nature of the community experience necessitated an approach that allowed the study to take place in the context within which the community existed. This was facilitated through a *Case Study* approach allowing an in-depth and focused study of the community experience (Willig, 2001) and *Grounded Theory* allowing the study of community in situ (Strauss, 1987). The case in the study was selected as an *instrumental case* considered to be an exemplar model of learning community development (Willig, 2001).

Measuring the extent to which the elements of sense of community were developed was achieved through application of the Sense of Community Index (Chavis, Hogge, McMillan, & Wandersman, 1986) a measurement tool that has been shown to have validity across contexts (Chipuer & Pretty, 1999). For the purpose of this study, a number of small changes were made to reflect the online learning environment (Chavis et al., 1986). In addition, negatively worded items were changed to the positive form and the true-false response mode was changed to a Likert scale with optional responses including not applicable, to a lower extent, to a low extent, moderate, to a certain extent and to a greater extent. Scale sensitivity was enhanced by the inclusion of three open ended questions that explored the realities of context and the individualised experience of members (Sonn, Bishop, & Drew, 1999).

Table 2: Modified Sense of Community Index

Statement	Scale
• What level of satisfaction do you experience studying in this environment?	Reinforcement of needs
• To what extent do you believe that people in this group seem to share the same values?	Reinforcement of needs
• How much do you think other students appear to want the same things from the group as you do?	Reinforcement of needs
• How well do you know the other people who study in this group?	Membership
• How much do you feel at home in this group?	Membership

Statement	Scale
• How well do you think the other students in this group know you?	Membership
• How much do you care about what other students think about your actions within this group?	Influence
• How much influence do you think you have over what this group is like?	influence
• If there is a problem in this group, to what extent do you think that the students could get it solved?	influence
• How important is it to you to learn with this particular group?	Shared Emotional Connection
• How well do you think that people in this group generally get along with each other?	Shared Emotional Connection
• How significant do you think that other students find studying together in this course?	Shared Emotional Connection

The following open ended questions that explored the community context and what it means to be a member were included in the inquiry used to gather data from the students.

- What do you enjoy most about your membership to this group?
- What has encouraged you to join and take part as a member?
- What has discouraged you to join or take part as a member?

An interview schedule was utilised to allow the instructors to account for their own understanding of the community development process (Patton, 1990) Interviews were conducted prior to the commencement and again at the conclusion of the course. This schedule allowed insight into the instructor's account of planned strategies and impromptu strategies. Interviews followed a semi structured format providing a framework while allowing the instructor to express themselves freely and openly (Willig, 2001).

Further insight was gleaned through observation of what actually transpired (Becker & Blanch, 1970; Patton, 1990). To reduce the influence observation may have on participant behaviour (Patton, 1990; Willig, 2001) the researcher adopted a non-participant role.

The Case Study

The course selected as the case was a graduate program in designing effective online learning environments. The instructor was experienced in the online mode of delivery and intended the course to be an exemplar model. A key instructional strategy was the development of an online learning community where students work collaboratively in the learning process. Nine students were enrolled in the course, five females and four males. The students were at a graduate level and were professional educators actively involved in the development of online learning packages.

Forms of engagement and activity

Modelling best practice was adopted as a key instructional strategy where the instructor intentionally demonstrates and embedded best practice in their instructional strategies. Key features included the use of collaborative activities that encouraged students to *talk* with one another share ideas and reflect on their learning. The course adopted a problem-based approach to learning where students engaged in weekly activities and worked together to resolve set tasks. The complexity of the problem was set to a level that encouraged students to work together in order to effectively manage the required workload. Although students may have chosen to work alone the extensive workload detracted from the attractiveness of this option. Tasks were open ended and groups were encouraged to develop their own approach to resolution. Students were allocated to groups of two or three and were allowed a brief period of time to *get to know each other* before engaging in the first problem solving activity. The instructor indicated a deliberate intention to use purpose as the binding factor

in community development believing that in such a short period of time it is not possible to engage in any meaningful social activity. It is purpose that encourages the group to form a definite bond. Group formation and the allocation of roles was intentionally left to the students and any conflict was managed at the group level with the limited instructor intervention. In addition to set small group tasks students were provided with weekly discussion topics in a public forum to create a sense of a larger group. The instructor provided a flexible schedule as a general guide for groups to monitor their progress and undertook a pro-active role in keeping students on track by posting weekly messages of encouragement.

Students were provided with support from the instructor to resolve the inevitable technical difficulties often experienced in the online environment. These difficulties were treated as an unfortunate reality of life by the instructor who intentionally remained calm allowing barbed comments from students to *bounce of him* while he worked hard to make this person feel part of the group. The instructor made comment of the role of humour in coping with technical difficulties associated with online learning;

'You have got to keep a sense of humour in online learning - if it can go wrong it will go wrong. As a teacher I find that I just have to keep their spirits up and don't let the frustrations and concerns worry them too much. I almost jolly them along.'

Student Response

Eight of the nine students took advantage of the opportunity to get to know each other prior to engaging in the problem solving activities and posted messages of introduction and greeting fellow students. Students also engaged in sharing and social interactions. One student commented on the success of this activity stating

'I've spent a lot of time in the conference over the past few days and am impressed to the max.'

Students expressed appreciation of the positive approach to the learning environment adopted by the instructor. All students chose to take part in the collaborative resolution of problems in small group settings rather than working alone although one student expressed considerable annoyance in doing so. While all students engaged at various levels and adopted varying roles in small group problem solving tasks a difference in participation in the public conference board was noticeable. While eight of the nine students utilised the public forum to get to know each other, participation in the weekly discussions varied over the course of the semester. An evident trend was that three female students remained consistent participants while only one male consistently contributed to these discussions. Students commented on aspects of group membership that they enjoyed including the opportunity to have their say, working together but never meeting up in the real world and whole class discussions. One student commented that the use of small group problem solving activities proved effective in encouraging the formation of a learning community:

'I enjoy submitting a joint piece of work with my "little" group and getting a good response from Ron. Also enjoy the little non-work related comments that flow between our "little" group from time to time as well as being able to encourage some members who don't feel confident to participate in the larger group but who will confide in the small group.'

In contrast one student commented on the inadequacy of this activity believing it to be ineffective in assisting the development of a learning community stating that there was no evidence of instructor initiated activity that prompted the development of a learning community:

' There has been no attempt for any group members to actually 'get to know' each other therefore to see if we actually 'get along' there is no valid reason given us to form or use a 'learning community' and it is not encouraged by the teacher for students to interact in a way that could be said to reflect a learning community therefore there is no true learning community or group. I can say this because I have been actively involved in online communities for the past 5 years and the difference is large.'

Elements of sense of community

Results of the sense of community index provided strong support for the supposition that students believed themselves to be members of a learning community although the elements of sense of community were deemed to be present at varying levels. Students response to the questions exploring shared emotion connection indicated a moderate to positive response as with the element of reinforcement of needs. The questions exploring membership returned the least favourable response with students indicating that they did not identify a discernible difference between members and non-members. Students also indicated that they believed themselves to be in a position of influence in the group at a moderate to low level. This suggests that while students perceive that their needs will be met through their membership and that they have shared an emotional connection with other members they do not perceive themselves as separate from non-members and that they have limited influence over the group.

Summary and conclusions

There has been a strong call for instructors to develop learning communities in the support of students learning in the online environment. However, there is little empirical evidence to guide instructor in this process. In this paper we explored the forms of activity and engagement employed by an experience online instructor in the development of a learning community. The intention being to identify forms of engagement and activity that promote community development, the manner in which students responded to these and the resulting sense of community. The exploration suggested several strategies employed by the instructor that promoted a sense of community among learners. These included the use of purpose as the binding factor apposed to social factors, the use of problem based learning requiring the resolution of complex problems in small groups and support for the development of sense of a wider group. The study also suggests that socialised gender roles may influence a students decision to join a community.

The findings of this study appear to suggest that it is possible to both support students' natural will and prompt rational will to form community. The data gathered in this study suggests that students did form a sense of community at varying levels in response to the forms of engagement and activity employed by the instructor. The study also suggests a need for more work that further explores the practices of experienced practitioners in the development of online learning communities and the manner in which students respond.

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