Becoming a "Communal Architect" in the Online Classroom - Integrating Cognitive and Affective Learning for Maximum Effect in Web-Based Learning

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Introduction

Successful online instructors realize that building a sense of "community" in the online classroom is necessary for successful learning outcomes (Gunawardena, 1994; Wiesenberg & Hutton, 1996; Campbell, 1997; Gunawardena & Zittle, 1997; McLellan, 1999; Kazmer, 2000; Wegerif, 1998). The development of community "becomes a parallel stream to the content being explored" in online courses: [It is not] "something that 'mucks up' or interferes with the learning process (Palloff & Pratt, 1999, p. 30).

Many online instructors build a sense of connectedness and social presence in online courses through verbal and nonverbal (textual) immediacy behaviors (Baringer & McCroskey, 2000; McAlister, 2000; Vrasidas & McIsaac, 1999), which in turn may be experienced "vicariously" by students in the learning process (LaRose & Whitten, 2000, p. 336). More important, perhaps, research demonstrates that immediacy or pro-social behaviors positively correlate with both affective (McDowell, McDowell & Hyerdahl, 1980; Anderson, Norton, & Nussbaum, 1981; Plax, Kearney, McCroskey, & Richmond, 1986) and cognitive learning (Richmond, Gorham, & McCroskey, 1987; Gorham, 1988) in the face-to-face classroom setting. Early findings suggest that similar results may be obtained in the online setting (e.g., Gunawardena, 1995; McAlister, 2000, Baker, 2000; LaRose & Whitten, 2000). In short, understanding how to build and manage a positive social dynamic can encourage knowledge construction in ways that extend learning opportunities in the online classroom.

In light of the foregoing, the authors will discuss several online and offline community-building strategies that may be used to foster a positive social dynamic in online courses. Before presenting specific strategies we'll begin by introducing what we refer to as *communal scaffolding*. The communal scaffold model lets instructors conceptualize how affective and cognitive learning are inextricably intertwined in the online learning process. It also provides a theoretical base and sets pedagogical guidelines for fostering a supportive communication climate in the online setting. A "communal architect", then, is someone who erects a communal scaffold for the purpose of community building. Lastly, as presented herein, the communal scaffold is consistent with the assumptions embedded in Climate Theory - popular in community and social psychology literature - which assumes that psycho-social climates vary with different settings, that climates are a product of environmental and individuals characteristics, and that the

relationships between climate, setting, and individuals are reciprocally influential (Pargament, et al., 1983).

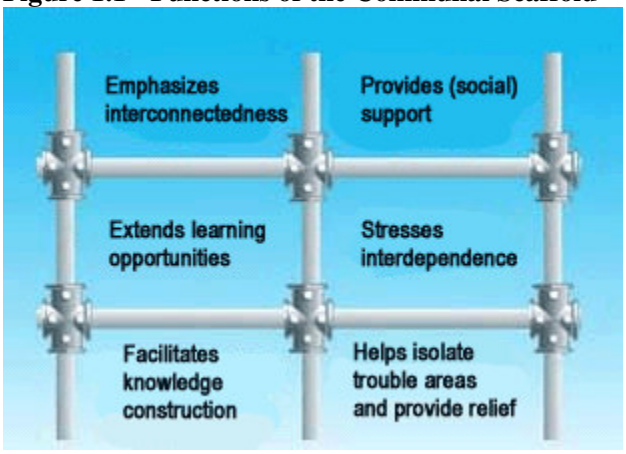
The Communal Scaffold

Greenfield (1984) and Harley (1993) first used the scaffolding concept to explain how knowledge is transferred from cognitive to practical applications. In such instances the scaffold was used to help visualize how the gap between task requirements and skill levels could be bridged. But when we talk about *communal* scaffolding here, we are referring to bridging the gap of another kind - the gap between the task (cognitive, intellectual) and interpersonal (social, affective, interpersonal) requirements of online learning.

The scaffold is built upon the assumption - along the lines of Moore's Transactional Distance Theory - that the "distance" in distance education is pedagogical and social, not geographical, and that this separation between instructor and learner in a classroom environment may be overcome through effective dialogue (i.e., instructor-learner interaction) and instructional design (i.e., structure) (Moore & Kearsley, 1996, pp. 199-203). Similarly, as Hurt, Scott and McCroskey (1978) observed, "there is a difference between knowing and teaching and that difference is communication in the classroom" (p. 3). The process of communication, then, as represented by the interconnectedness of the scaffold, is at the heart of the learning experience, whether the setting is online or face-to-face.

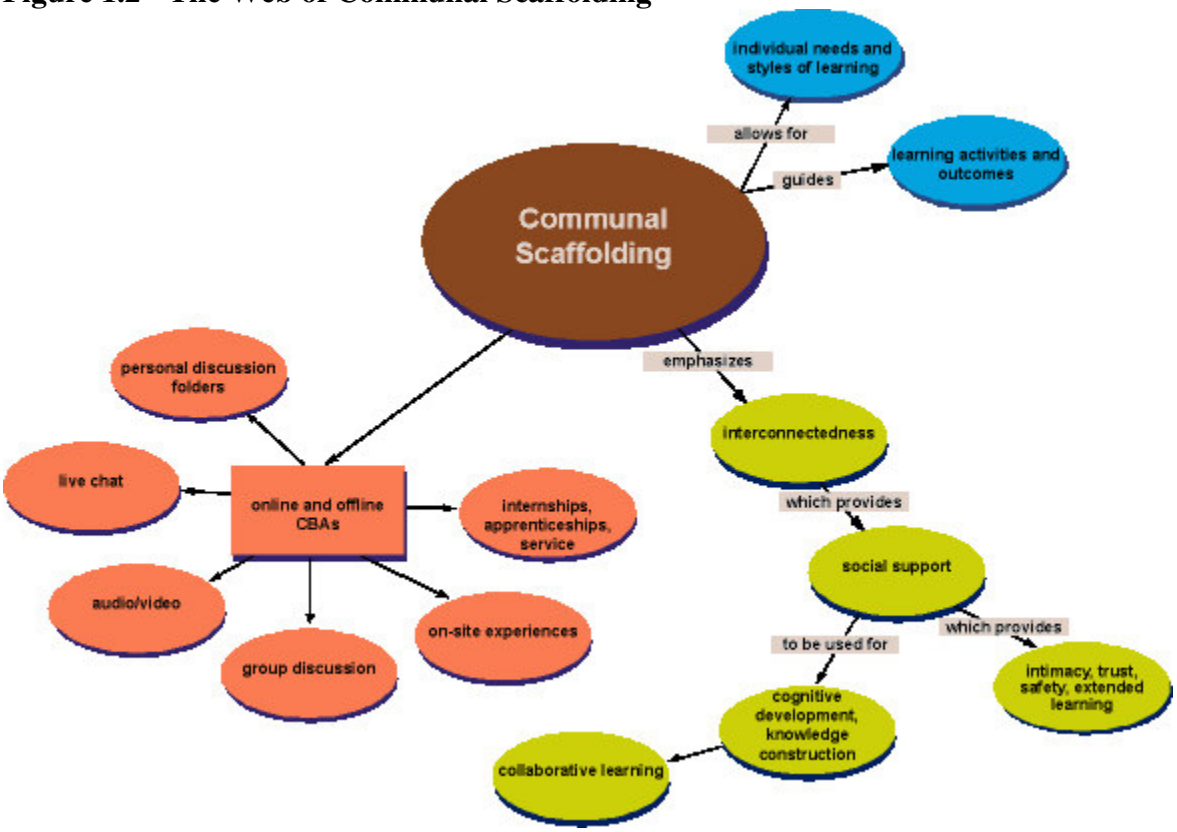
As Figure 1.1 below depicts, communal scaffolding recognizes that successful online learning must structure social support if learners are to be optimally challenged academically to maximize learning benefits. Scaffolding provides support for the structure, which adds an element of safety to the project, and provides a place to stand (foundation) for the "construction workers" (i.e., students and instructor). As such, it encourages and reinforces cognitive development (knowledge construction) in the context of social connection and facilitation much in the way that LaRose and Whitten's (2000) Social Cognitive Theory provides a framework to develop a unified construct of instructional immediacy for Web-based courses. Furthermore, as interpersonal dynamics are fitted into the existing scaffolding structure—through various online and offline strategies to be discussed below—learners are able to extend their range of learning opportunities by collaborating with others to achieve goals and complete assignments not otherwise possible. Finally, the scaffold enables instructors and others to isolate individualize needs and customize communication to address a range of learning styles and socio-cultural variables. In brief, the stronger, more secure, and better built your scaffold, the more "robust" (Calderwood, 1999) your social dynamic and the more opportunities for learning.

Figure 1.1 - Functions of the Communal Scaffold



The diagram below was designed to help further conceptualize communal scaffolding. It graphically depicts the interrelationship between cognitive and affective learning described in the paragraph above. It demonstrates how the scaffold facilitates interconnectedness and shared responsibility for learning outcomes, and how the cognitive and affective aspects of online learning may interact to produce optimal results.

Figure 1.2 - The Web of Communal Scaffolding



Now that the communal scaffold has been presented in the context of community building in an online educational environment, the next sections focus on how to build it using various online and offline strategies and communication tools. We call these basic communication tools **Community Building Activities** (CBAs). They are reliable, easy-to-incorporate strategies with observable benefits that are common fare in most online learning environments. *Online* you can scaffold using personal discussion folders, immediacy, live chat, personalized email, audio/video, regular updates and feedback, group discussion and private places. *Offline* instructors scaffold through field trips, road trips, on-site experiences, internships, apprenticeships, service learning, cohort group meetings, and phone calls.

(1) **Personal Discussion Folders** (discussion "rooms" or "forums"): These are simply gathering places (usually created within web-based educational platforms) where personalized threaded discussions between participants in online courses may occur. Instructors are encouraged to begin their online experience by creating a place for students to create a personal profile or "electronic personality" (Pratt, 1996, 119-120). These places might be titled "Autobiographies" or "Introductions." In any case, they are places where students' "e-personalities" may be posted and inferences or "impressions" about another learner's personality, value and traits may be formed. Personal discussion folders let students reduce uncertainty and process social information about others by asking questions in a setting where the number of communication cues are reduced

(Uncertainty Reduction Theory, Pratt et al, 1999; Social Information Processing Theory, Walther, 1992). They also allow students to take advantage of the asynchronous nature of CMC and make optimal presentations of "self" (Walther's, 1996, Hyperpersonal Communication Perspective). As Pratt and colleagues (1999) reported, CMC participants ask roughly the same number and same types of questions during their interactions even though CMC interactions were asynchronous and took longer to develop. One difference was that CMC participants asked more questions aimed at getting at the "inner self" of the other person. Personal discussion folders, then, provide an initial place for exploration of the "inner self" to the extent desired by students.

In addition, Hancock and Dunham's (2001) Information Processing Theory explains the type of communication that may occur in these folders. They observe that impression formation occurs in computer-mediated communication (CMC) in much the same way as it occurs in face-to-face communication. Results of their study indicated that impressions formed in CMC environments were less detailed but stronger than those formed as a result of face-to-face interactions. Thus, online students interacting through this CBA may eventually develop stronger reactions to others, even though those reactions are based on a relatively small amount of information and may take a slightly longer time to form (Walther & Burgoon, 1992).

Finally, personal impression formation and uncertainty reduction of the sort described above usually occur during the first several days of class before course content is discussed. The benefits of self-disclosure will extend to the larger issue of group or class dynamics. Woods and Ebersole (2003) reported that encouraging student participation in one of four types of personal discussion folders may result in positive faculty/student relationships, positive relationships among students, a sense of community, and satisfaction with the overall learning experience.

(2) **Immediacy**: Immediacy refers to the extent to which selected verbal and nonverbal communication behaviors enhance intimacy in interpersonal communication (Mehrabian, 1969, 1971; Andersen, Andersen & Jensen, 1979) and "reduce perceived distance between people" (Thweatt & McCroskey, 1996, p. 198). Several studies demonstrate the power of instructor immediacy on creating a greater sense of classroom community among learners. To some degree, each of the online CBAs in this section is designed to foster a certain level of immediacy.

Responding to email or threaded discussion in a timely manner is one way to be immediate. As a rule of thumb, we suggest responding within 24 hours. In one study, instructor immediacy in feedback was the strongest predictor of learning—both affective and cognitive learning—among students (Baker, 2000). In another study, "students felt that the lack of immediate feedback in the online portion of the course was discouraging and contributed to their limited participation in the online discussions" (Vrasidas & McIsaac, 1999, p. 33). Note that instructor immediacy in response to student communication may even be experienced "vicariously" as learners observe it while interacting with other students in group discussions (p. 33). Students eventually develop an expectation of presence based on an instructor's response rate. Responding at different times of the day may even build anticipation for immediacy.

Verbal immediacy behaviors such as asking questions in dialogue or otherwise initiating discussion, addressing individual students by name, using personal examples or talking about experiences outside of class (Gorham, 1988) may be used by online instructors in a variety of formats to increase psychological closeness among learners. Nonverbal immediacy behaviors include tone of voice and inflection (Richmond, Gorham, & McCroskey, 1987) and emoticons (note: tone of voice is discussed below under audio/video). Emoticons are graphic accents or textualized icons created by a series of standard keyboard characters combined to produce a picture (e.g., :-)). Thompsen and Foulger (1996) found that the use of emoticons reduced reader

perception of anger (i.e., flaming) in electronic mail messages. Turkle (1995) explained that such keystroke combinations replace nonverbal cues such as physical gestures and facial expressions used in face-to-face settings to foster immediacy (Mehrabian, 1971; Andersen, Andersen & Jensen, 1979), thus placing online communication somewhere in between traditional written and oral communication (p. 183). Indeed, the research has indicated that online communicants compensate for the lack of such nonverbal cues and physical presence by encoding verbal intimacy cues in the textual messages to convey affect (e.g., Gunawardena, 1994; Rice & Love, 1987; Wilkins, 1991). Gunawardena and Zittle (1997) found that participants in a computer conference enhanced their socio-emotional experience through the use of emoticons to express missing nonverbal cues (p. 23).

(3) **Live Chat**: we've found that scheduling "virtual office" hours or other times for "live chat" related to course content matters helps us connect with some students in ways that email or voicemail can not. For many, it helps reduce perceived interaction difficulty (Arbuagh, 2000) associated with time-independent posting and replying. On a more practical level, this function allows students to have a conversation without paying for a long distance call. These chats may even be archived and reviewed by others in the class at a later time. Students who can not make it to the virtual hours may still benefit from the questions asked by others. Moreover, students like the quick response time that live chat provides. It adds strength to the immediacy fostered through 24-hour-turn-around time discussed above. And just as in real-time office sessions, live chats let us model a more informal, personal style of textual interaction. This style, in turn, may enhance students' perceptions of us as being expressive/warm and generally involved—two communication behaviors identified by Guerrero & Miller (1998) as being positively associated with impressions of instructor immediacy, instructor competence and course content.

Lastly, there's a very real sense in which live chat heightens "the degree of salience of the other person in the interaction" (Short, Williams & Christie, 1976, p. 65) Put another way, live chat may enhance an instructor's co-presence with students. Students participating in live chat may perceive the instructor as "more real" than those who don't participate in such communication. As one student in one of our classes remarked, "it's like were really together."

(4) **Personalized Email**: another way to connect with students is to send personalized email (PE) outside of regular class time or required course discussion. Personalized email might be used to encourage a student who made a solid contribution in one of the required discussion fora. Again, as with live chat, PEs are prosocial behaviors that help to create the impression that we are expressive/warm and generally involved. As instructors, we use PEs regularly. The messages are usually two to three sentences long and include general words of encouragement, caring or support. You may also use PEs to check up on someone who doesn't appear to be as active in discussion as others And depending on the size of the class and your time, you can send the same type of personalized emails just described to small groups. As few as three personal emails sent to students throughout the course of the semester has been positively associated with students' sense of online community and overall satisfaction with the learning experience (Woods, 2002).

Personalized emails may be used to enhance students' *perception* of faculty-student interaction. Clow (1999), Phillips and Peters (1999), Roblyer (1999) and Hacker and Wignall (1997) all concluded that a student's *perception* of sufficient interaction with instructors and other students is positively correlated with his level of satisfaction with the overall online learning experience. Furthermore, a "sufficient" level of interaction with faculty generally creates a "sense of personalization and customization of learning" (Boettcher, 1999, p. 43) and helps students overcome feelings of remoteness—perhaps the greatest obstacle to fostering a student's sense of community in online distance learning (Everhart, 1999, p.12). Arbaugh (2000) found that

perceived interaction difficulty was negatively correlated with student satisfaction while perceived instructor emphasis on interaction was positively correlated with student satisfaction. Arbaugh concluded, "It appears that the flexibility of the medium and the ability to develop an interactive course environment play a larger role in determining student satisfaction than the ease or frequency with which the medium can be used" (p. 43).

(5) **Audio/video**: some instructors have used audio messages (as a supplement to text) as e-mail attachments to build student/faculty relationships and a sense of online community (Woods & Keeler, 2001). Others include video welcomes, use videocams for live chat sessions, or send personal video clips as email attachments to create intimacy. Audio/video elements can introduce additional communication cues in the online learning process that have been positively associated with immediacy in face-to-face settings. In this sense, using audio and/or video allows instructors to address some of the concerns highlighted by the "cues-filtered-out" perspective, which explains how certain audible (actual words spoken, tone, accents, paralinguistic cues) and visual channels (attire, facial expressions, kinesics and psychophysiological responses) are filtered out in CMC (Kiesler, Siegel, & McGuire, 1984; Hiltz & Turoff, 1993).

A variation of the audio/video message as email attachment is the PowerPoint slide with recorded narration. Some instructors add personal photographs or other personalized graphics to the slide. As instructors we've found that our tone of voice can be used to set the right mood for future communication. It becomes a perceptual framework through which subsequent communication (whether textual or otherwise) is filtered. The use of vocal expressiveness and vocal quality are included on the list of nonverbal behaviors that create immediacy (Hackman & Walker, 1990; Andersen, Andersen & Jensen, 1979). Articulation articulation/clarity were associated with positive impressions of instructor competence and course content (Guerrero & Miller, 1998). Audio/video elements let instructors return valuable communication cues to the online learning process.

(6) **Regular Updates and Feedback**: instructors can send weekly updates with a checklist of items that students can use to guide their time and study. As mentioned above, if you include the update on a PowerPoint slide you can add audio narration with little effort. Such updates may even increase students' perceptions of high degrees of faculty interaction. In addition to a few slides that include content review, we often include slides that keep students looking ahead to next week's work. As part of our updates we even include an occasional humorous cartoon or illustration related to course content or classroom procedures. Humor has been positively related to instructor immediacy behaviors and the amount and type of humor has been demonstrated to influence learning outcomes (Gorham & Christophel, 1990; Christensen & Menzel, 1998, Menzel & Carrell, 1999; Comeaux, 1995).

Instructors may also provide detailed feedback on assignments to create immediacy and enhance cognitive learning. Richmond, McCroskey, Kearney, and Plax (1987) found that prosocial behaviors such as immediate reward and teacher feedback were positively associated with cognitive learning. Hackman and Walker (1990) found that "Off-campus students felt as though they learned more when their instructor provided them with specific feedback on individual work through comments on papers, oral discussion or some other means" (p. 202). Instructors may also provide feedback to students about their participation levels (De Verneil & Berge, 2000) in ways that enhance intimacy and extend learning opportunities.

(7) **Group Discussion and Discursive Style**: one of the most basic online CBAs used to build connectedness revolves around participation in required group discussion formats. Threaded dialogue can help to build a foundation upon which a more elaborate communal structure can be

built. Dialogue introduces students to one another at a cognitive level. Feeling "safe" to express one's views is an important part of building community. Safety is further enhanced by establishing early on in the course rules for appropriate engagement and conduct within required discussion folders.

An inappropriate discursive style may prevent students and instructors from connecting with one another. It is well established that online learners desire both relational and personal interaction and a learning environment that welcomes alternative or opposing views (Blum, 1999). We are therefore careful as instructors to observe our own "voices" to make sure that we don't shut down or silence opportunities for debate by eliminating alternative ways of viewing the issues at hand. Along the way, we've had to resist the desire to play "expert" or be perceived as the "final word" on any issue. Faculty must become comfortable with playing the part of "provocateur" instead of "academician" (Parker, 1999, p. 16), concentrating more on leading discussion and promoting collaborative learning and less on lectures and assessment (Young, 1997).

While it's all right for instructors to critically challenge ideas, they should avoid accusatory language or leading questions that indicate their biases. Gorham (1988) found that nonimmediacy behaviors include such items as "criticizes or points out faults in students' work, actions or comments" (p. 44). Instead, instructors should use concrete and descriptive language in their replies. Encourage and model personal expression, whether through nicknames, emoticons, or other types of interpersonal communication (Chenault, 1998; Lea & Spears, 1995; Parks & Floyd, 1996; Rheingold, 1993, Walther, 1996). Often it is best to begin your reply to a student's post with a positive comment before critically addressing other matters. As noted earlier, using the student's first name is another way to build immediacy and social presence (e.g., Gorham, 1988) before providing specific feedback or correction.

(8) **Create private places**: to the extent allowable by the instructor and course management platform, create a separate private area for your students apart from general class discussion. In Blackboard, we usually create a "cyber study room" where previously assigned discussion groups can meet apart from required discussion formats for informal chat. This is the same idea as the personal discussion folders mentioned earlier, but for students only. This is a space that the instructor may not enter unless invited. Such private places—apart from the instructor's watchful eye—allow more opportunities for "hyperpersonal communication" (Walther, 1997). The Hyperpersonal Communication perspective recognizes "unique affordances of the medium that allow users to achieve more favorable impressions and greater levels of intimacy than those in parallel FtF activities" (p. 348).

Offline Strategies for Communal Scaffolding

Now that online strategies for constructing your scaffold have been explored, we'll explore several offline strategies. Offline efforts to build community, when carefully integrated with the learning objectives of the course, can greatly enhance students' experiences. Known variously as experiential learning or contextual learning, constructivist approaches to learning that emphasize practical application and sensory experience (Gergen, 1995; Salomon & Perkins, 1998) are increasingly being called upon to enhance the text-heavy focus on online learning. Off-line strategies provide a balance for students who may become frustrated with what they perceive to be too much "talk about theories."

While much of the recent research has been exploring ways to improve online communication, it is almost always undertaken with the assumption that online communication begins at a disadvantage to off-line, or face-to-face (F2F), communication. We need to point out that by F2F

we don't necessarily mean traditional, passive, lecture presentations. F2F should be much more than that and should precipitate the kind of active participation and interactivity that is also the goal for online communication. Interactivity should also be understood in terms both of interaction with the course content and interaction with fellow learners and teachers.

Following are several offline strategies, or offline CBAs, that can be employed to encourage and enhance the building and strengthening of relationships, which, in turn, can extend learning opportunities for online learners.

(1) **Field-trips, road trips and on-site experiences**: If possible, instructors should think of a reason to take the online class "on the road." By this we mean find an opportunity to visit a site where there is opportunity for practical application of the classroom theory. For instance, we recently took a small group of students to a fairly distant city for a day-long seminar that was being sponsored by a professional organization. The experience of overcoming a common adversity, in this case meeting at 5:45 am in order to get to the seminar by 8 am, and the camaraderie experienced during the 2 hour drive (each way) contributed to the development of relationships. The experience of sharing a meal on the trip home was another opportunity for relationships to be strengthened. Learning experiences from the road trip can later be incorporated in a classroom or online discussion. Specific course discussion areas, for instance, may be created to provide a summary of attendees' experiences.

A variation of this offline CBA can be initiated by students who live outside the instructor's geographic region, which is the usual case for most online students. Students can meet a faculty member or other students at a conference or professional organization. We often notify our students when we will be at a conference in their location. We tell them that we would like to get together for lunch or have them join us at the conference. Some out-of-state students even take the initiative to contact us when they will be in our area for a professional or personal engagement. We go out of our way in those cases to make the F2F meeting happen.

(2) **Internships, apprenticeships and service learning**: these offline strategies provide opportunities for students to engage in experiential learning while they build relationships with people outside of the traditional classroom. The relationships that are formed with colleagues, professionals and members of the community have value not only from the perspective of networking, but they can be important connections to the kind of real-world experiences that students need (Parks-Dolaz, 1990). Students engaged in community projects or working side-by-side with professionals frequently find the human connection that allows them to connect theory and practice in ways that didn't make sense before.

While most understand internships and apprenticeships, service learning may be less familiar. Service learning is practical application of knowledge and learning by working on community-based projects (Loesch-Griffin, Petrides & Pratt, 1995). Frequently associated with volunteer service projects, service learning allows student participants to practice interpersonal relationships and caring for others. This expression of caring, which is demonstrated through practical community service, is a return to the activism of earlier decades, but with a decidedly modern, or should we say postmodern, sensibility. Students might apply their skills and training to solve a problem that might otherwise remain unsolved, and in so doing forge friendships and relationships that enrich their lives (Weiler, et al., 1998; Root, et al., 2002).

(3) **Cohort group meetings and projects**: some programs use this strategy during the summer prior to the first fall semester of classes. For example, online students meet F2F on campus for an intensive two to three week class session in early August. Individuals are assigned to small

groups on the basis of personality inventories that are administered shortly after enrollment into the program (Calderwood, 1999). Students share meals together, attend conferences, work on group assignments, and attend classes together. Students usually report feeling a strong sense of community with others following such meetings. Cohort activities greatly increase retention rates and reports of overall satisfaction with the learning experience. They also serve as an excellent communal foundation that can be built upon by instructors in subsequent online courses (Imel & Tisdell, 1996).

Another variation of this strategy is a cohort or class meeting within an individual class. In one instance we held a class meeting half way through the semester at a local coffee house. Students in the immediate area (and some as far as two to three hours away) attended the meeting. Upon return to our regularly scheduled online activities, we observed a measurable change in the depth of reflection in posts/replies to our discussion questions. We had fewer late papers and "absences." However, it is recommended that any such meeting take place only after students have demonstrated a certain level of comfort and responsibility in interacting with one another in the online setting.

(4) **Phone Calls**: while this may seem simplistic or obvious to some, it is often overlooked by online instructors and students. It is surprising what a personal phone call can do to enhance a sense of connectedness. In one distance education study, off-campus students felt as though they learned more when their instructor used phone calls to express caring and provide specific feedback (Hackman & Walker, 1990).

While the phone might arguably be seen as an "on-line" strategy (especially in light of growing voice-over-IP services), since it is more personal, more familiar, and less technologically complex than computer-mediated communication, we've chosen to treat it as an "off-line" strategy. Besides, those on the receiving end, regardless of the originators source, will most always be using a traditional hand-held unit. And because phones are important social tools that are part of the American fabric, communication by phone is often perceived as less task-related than, say, email.

Closing Thoughts

So, how do we contribute to the kind of communal infrastructure that builds connectedness and promotes learning? Perhaps the starting place is to recognize the strong connection demonstrated in the research between a positive social dynamic and cognitive learning. Practitioners must also recognize that a positive social dynamic requires intentionality—that is, community just doesn't happen but is created through a variety of verbal and nonverbal communication cues. Becoming more effective in building community begins with precise definitions and measurement of community and the collection of data beyond simple self-report by students. Attempts to more fully define community in the online setting (e.g., Gergen 1991; Jones, 1995; Shell, 1995; and Pratt, 1996) and various approaches to the measurement of community (Rovai & Lucking, 2001; Rovai, 2002; McAlister, 2000; and Baker, 2000) have moved us much closer to our goal.

It should be noted that there are no shortcuts to developing community. It takes time, and there is no substitute for time spent in communication with others—whether online or offline. Of course, time alone is insufficient. The time spent with classmates and with the instructor must be structured in such a way that enhances the all-important transfer of intellectual and emotional capital.

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