This project used Internet technology to build community and reduce isolation during student teaching, improve communication and enhance supervision of student teachers, and encourage reflection. The project supported student teachers by establishing Internet communication between them and their supervisors. This involved providing Internet addresses for everyone involved and establishing six listservs. Each student teacher had to subscribe to and participate in at least one listserv. The listservs were primary school, elementary school, and middle school; music, physical education, art; high school; and professionalism. Some of the student teachers gladly seized upon the listservs, engaging in meaningful discussion and reflection with their peers and supervisors. Research is beginning to accumulate on the use of e-mail in a variety of settings, including teacher education. The research suggests that there is still a need for face-to-face interaction, and depersonalization is a risk of using the Internet, but it also has many advantages (e.g., a convenient means of professional exchange for student teachers and their mentors). (SM)
Internet and list-serves to support the student teaching semester.\(^1\)

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The technology of the Internet was employed in this demonstration project to achieve noble goals: to build community and reduce isolation, to improve communication and thereby enhance supervision of student teachers, and to encourage reflection by these novice professionals. It's fair to say these goals were partially achieved. Our hope now is to promote these goals and to employ what we have learned in the process to refine future efforts.

The three colleges involved are selective, private, liberal arts colleges in northeast Iowa. Each sends student teachers to areas away from campus and struggles to maintain the kind of personal contact during student teaching that students have come to expect from small college classes. The campuses are located 70 to 120 miles from each other.

As noted in other parts of this symposium, the state of Iowa owns and operates a two-way audio-video network that links schools across the state in a fiber-optic system called the Iowa Communications Network (ICN). The three colleges chose to offer a joint student teaching seminar using this network. Weekly seminars linked student teachers from the three colleges in sessions dealing with support issues important during the professional semester.

An ongoing concern during student teaching is to maintain the personal nature of the experience. In keeping with the effort to use technology to improve the efficiency of faculty in working with student teachers, we sought to support the student teachers by establishing Internet communication between them and their supervisors. Two means were chosen to accomplish this. Internet addresses of all involved were exchanged and regular interaction was encouraged. In addition, six list-serves were established. Each student teacher was required to subscribe to at least one of these and to participate in it. While regular observation visits were maintained, the hope was that their frequency might be reduced slightly with the most successful student teachers in order that supervisors could concentrate efforts on students most in need of intervention and support.

The six list-serve topics were primary, elementary, middle school, music/pe/art, high school, and professionalism. While not technically "moderated," each faculty member involved in the grant also subscribed to and participated in several of these lists. The expectation was that every student would subscribe to the lists most in line with their teaching responsibility and interests and make weekly postings. Student teachers did subscribe as desired. There were many useful interchanges on the lists. There was also less frequency of participation than intended. Attention to the successes and concerns as well as analysis of Internet use issues follow.

INTERNET SUCCESSES

List serves provide a rich forum for student teachers to flesh out their reflections on teaching, to touch bases with their colleagues, and to seek (and give) advice to support current

\(^1\) This study was supported by a grant from the AT&T/FIHE Learning Network Teaching and Technology Project.
concerns. It is frequently noted that teaching can be a lonely and isolated profession. Many of
our student teachers are located in schools where they are the only student teacher. The
schools in which they teach are frequently in small, rural communities or isolated from other
sites with student teachers. The Internet provides a means of communication with peers that
is not readily available otherwise.

The forum was gladly seized by some student teachers. Excerpts from some samples of
the issues they raised should be illustrative of the potential value of this forum:

1) “I think read alouds are a great way to motivate children to read more. ... My
parents never read to me ....”

2) “... This district has experienced a rapid growth in their minority
populations, especially Hispanic and Russian. ...[In the ESL program we] have run into
the problem that not only are we supposed to teach them English, we are also
supposed to teach them every other subject too. ... We deal with K-12 grades every day
and it is impossible for us to do this.”

3) “I remember when I used some of the materials in a FOSS kit last spring. I
rated it as being a lesson in which I thought teachers would really be pushing their luck
if they were to use it.”

4) “I have an eighth grade choir that won’t stop talking. It is an elective course;
they do not have to be there. So why do some of them come when all they do is goof
around? ... Any suggestions for behavior management for a group of 60 kids and 1
teacher?”

5) “I really can’t think of a lesson which I presented for multiple intelligences. I
can think of times when I gave lots of examples from different areas. For example ... I
tied in the movie Titanic, because almost all the kids had seen it (at least once).”

6) “My supervisor believes that classroom management should be more kind
while my cooperating teacher believes in tough love. I seem to fall somewhere in
between; whose philosophy do I follow while I am in this placement?”

It is rewarding for a college supervisor to see that student teachers are so thoughtfully
engaged in such topics. Of course, some of these issues regularly surface in student teaching
seminars. The power of the Internet is that it allowed the discussion to be initiated when it
was fresh in the student teacher’s mind rather than waiting for a formal gathering. Also, an
important value of writing is the opportunity it provides for added clarity and deliberateness.
Writing is such a powerful tool for aiding thinking that its use should be promoted. The
Internet offers a unique new way to do this.

A teacher working with me in a graduate program unrelated to this grant (but one who
works with student teachers) wrote glowing praise for the Internet. “I just love e-mail. It’s so
convenient.” The regular e-mail allowed student teachers and college supervisors to set up and
confirm appointments, to check on each other’s activity, to review expectations, etc. As
college intranets proliferate, students come to expect this kind of instantaneous access to their
fellow students and professors. As Internet availability becomes more common, its use in
schools will continue to gain in importance as a communication asset.

TECHNOLOGY CONCERNS
Another teacher working on separate professional development projects summarized a major concern. "You college professors have computers on your desk and easy access to the Internet. Do you understand it's not like that for classroom teachers? We have to go to a lab and log on to our accounts. It's not that easy." A further concern is that even if computers are readily accessible to some cooperating teachers, the student teachers may have difficulty gaining access to the teachers' system. If the teacher they serve under does not have a computer at his/her desk, the problem is compounded. Some student teachers simply did not have easy access to the Internet and the list-serves we established.

There is also the immediacy and overwhelming complexity of teaching for many student teachers. They become preoccupied with handling the immediate problem they face and question the value of reflection and a college requirement of posting to the list serve. Those who used it seemed to value the experience. As the difficulty of access and the novelty of this technology improve, it is reasonable to hope that students will embrace e-mail and list-serves as approachable resources to assist their professional growth.

There is also something of a "critical mass" phenomenon. We need to push past the early stages of reluctance to the point where sufficient use is being made that student teachers find their peers discussing issues they themselves care deeply about. This clearly happened in some cases and not in others. It was best facilitated by thoughtful prompts from faculty. In looking back, we see the need to "prime the pump" by raising questions we know hold currency for the students under our supervision. We observed the increased flurry of activity when a question or comment that caught students' attention was posted by a faculty member. It seems likely to reach a point where participation is self-generating. A sufficient core of student teachers with easy access to the list-serve and experience making postings so that it becomes a habit and valued resource are prerequisite.

DISCUSSION AND RECOMMENDATIONS

A body of literature on the use of e-mail in a variety of settings including teacher education is beginning to accumulate. The danger of depersonalization is one of the most prominent themes. Edward Hallowell (1999, 58), a psychiatrist, has noted that "face-to-face contact is still essential to true communication," despite the efficiency of e-mail and voice mail. He labels the personal contact the "human moment" and argues that it is omitted or de-emphasized at peril to organizations. Loneliness, isolation, over-sensitivity and self-doubt are common consequences. "The remedy is not to get rid of electronics but to restore the human moment where it is needed (Hallowell, 1999, 59). In planning this technology dependent project, we recognized the need for interpersonal relations and establishing trust. A whole-group picnic was planned to allow students from across the campuses to establish rapport before emphasizing the technology components of fiber-optic meetings and list-serves. It seems likely that more of this personal interaction could have facilitated the on-line interaction.

Another concern of on-line interaction is negative personal effects. Bower (1998, 168) notes studies showing "small but statistically significant drops in time spent talking with family members" as well as signs of mild depression in volunteers who made heavy use of e-mail. He also reports research showing isolation and loneliness increased especially in teenagers who were frequent Internet users. It seems unlikely that professional, purposeful use as advocated in the current study would result in such personality impairments. However
Thomas, Clift and Sugimoto (1996) cite studies showing that teachers were more inclined to use computer based communication for moral support and social and emotional assistance than for professional information exchange. They note that power and status issues, including apprehension about evaluation, restrict participation.

Positive aspects of on-line communication are also reported in the literature. Schall (1997) has praised e-mail for having helped people to rediscover letter writing. Writing is an art which needs practice; e-mail provides that opportunity. Miller's (1996) interview with Sherry Turkle reports that "E-mail stands somewhere between speech and writing. It's more spontaneous than writing ... it also lets you compose your words and say precisely what you want. And you're alone when you're writing, which creates a quiet space for self-reflection. It's a very evocative medium." Miller also reports positive personal outcomes including opening up closed personalities and community building.

Except for the access difficulties previously noted, this study has shown that Internet and list-serves are convenient means of professional exchange for student teachers and their mentors. This is supported by findings of Thomas, Clift and Sugimoto (1996) that efficiency for meeting expectations of student teachers and help in allowing instructors to quickly respond to students' concerns were major results.

Establishing Internet exchange as a norm remains an essential component to its use in the student teaching semester. Active and stimulative input from faculty is clearly essential. Face-to-face meetings are important to scaffold the on-line community's effectiveness. We close with the wise counsel of Turkle (Miller, 1996, 95), "the people who make the most of their lives on the screen are those who approach the experience in a spirit of self-reflection. Computers and the Internet have created a new space for growth."

References:


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