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ABSTRACT

This study investigated the communication styles of 5 mentors in telementoring a class of 33 preservice teachers. Electronic forum was the instrument of communication between the mentors and the students, and a Web-based computer mediated communication system was used to facilitate the instruction in the course. Data collected in an 8-week period resulted in 52 mentors initiating discussion threads and 43 follow-up posts. Analysis of the 5 mentors' 52 initial thread generating posts revealed 4 styles: the direct questioning, context explaining, experience sharing, and greeting styles. It was found that the five mentors most often posted a question in straightforward fashion (direct questioning). Context explaining was also used quite often. On the follow-up posts, it was found that 6 categorical styles exist among the 43 posts: the direct answering, suggesting, agreeing, summarizing, relating, and questioning styles. In this study, the agreeing, the relating, and the direct answering styles were used most often. It seemed that the follow-up posts in these three styles were easier to generate. (Contains 11 references.) (AEF)

Communication Styles of Mentoring in an Electronic Forum

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Abstract: This study investigated the communication styles of five mentors in telementoring a class of 33 preservice teachers. Electronic forum was the instrument of communications between the mentors and the students. Data collected in an 8-week period resulted in 52 mentors initiated discussion threads and 43 follow-up posts. Analysis of these posts revealed four discussion threads initiating styles and six follow-up posting styles.

Introduction

With the advent of computers and telecommunication technology, Computer-Mediated Communication (CMC) has shown its impacts on teacher education in the recent years. Usage of CMC can extend the traditional preservice teacher education teaching and learning environment. CMC enhanced environment can facilitate interactions among student teachers and help building new partnerships between preservice teachers, inservice teachers, and their prospective pupils (Van Gorp, 1998). Well-designed CMC activities can result in valuable learner-centered experience. Electronic forum, one of the widely used form of CMC, by being able to support reflective dialogues and collaborative processes, can facilitate the construction of teaching knowledge of preservice teachers (Loiselle, St-Louis, & Dupuy-Walker, 1998). Successful implementation of electronic forum in preservice education programs is abundant in the literatures (e.g., Casey, 1997; Wu & Lee, 1999).

Mentoring refers to a relationship where experienced teachers work with preservice teachers to help strengthen their professional skills. Traditional mentoring relationship is usually limited by school context factors, and the characteristics of experienced teachers and preservice teachers (Wildman, Magliaro, Niles, & Niles, 1992). By using CMC as a median in mentoring, telementoring gives the mentors the flexibility to collaborate with preservice teachers at anytime and any place. It provides a mechanism for dialoguing and sharing pedagogical practices; it helps preservice teachers construct teaching knowledge through real world experiences (Dobson, 1997). Studies in telementoring have shown plausible gains of the preservice teachers (e.g., Sanchez & Harris, 1996; Wu, Lee, Chiou, & Ho, 1999). However, they also raised many issues, among others are selection of electronic mentors and timing of replying to raised questions.

Spitzer, Wedding, & DiMauro (1995) attributed the success of LabNet electronic forum for high school science teachers to that of the moderators. They noted that skilled moderators are able to use variety of modes of communication to nurture collegial connections and reflective conversations. McMann (1997) also attest to the requirement of having specific skilled moderators for fostering learning in a CMC environment. When telementoring via an electronic forum, mentors usually double as forum moderators so that they can employ their professional expertise to stimulate reflective dialogues among preservice teachers. Although there is no clear-cut qualification for being a good moderator, but being able to prompting questions and following on responses skillfully are two fundamental aspects of moderating. For example, prompted questions that only require a yes or no answer often result in no discussion. On the other hand, responses that bring about related questions have better chance of maintaining the discussion.

The purpose of this study was to investigate the communication styles of mentors in initiating and following-up discussing threads in a preservice teacher's electronic forum.

Method

In this study, we used a web-based CMC system, namely Student Teacher Network (STNet) (Chiou, Ho, Wu, & Lee, 1998), to facilitate the instruction in the Teaching Practicum course. The Teaching Practicum course concentrates on micro-teaching in the first semester and field-teaching in the second semester. Thirty-three preservice computer teachers who enrolled in the course were asked to access the course materials and to attend the discussion forum in STNet. The students were randomly assigned to five groups. Each group consisted of six to seven students and had its independent forum. Five experienced teachers, all from different schools, were invited to serve as the mentors of the groups. Each of the experienced teachers was to initiate topics for discussions and to lead the discussions in the forum of their respective group.

Data analyzed in this study were the articles posted by the mentors during a five-week micro-teaching period and a three-week field-teaching period. Two raters examined the articles. The examination focused only on the communication styles of the discussion initiating articles and the follow-up articles of the mentors. Two worksheets had been designed and used by both raters, one for the analysis of discussion initiating article the other for analysis of follow-up articles. The worksheets specified possible communication styles and their operational definitions. A preliminary analysis was conducted before the two raters actually went on rating all articles separately. As it turned out, the percentages of agreement on analysis of initiating styles and follow-up styles were 87% and 80%, respectively. The disputed points were singled out for discussion so that the two raters could adjust their bases of judgment in later analysis of all articles. The worksheets were revised after the preliminary analysis.

Results and Discussion

Participation of the forum

Table 1 is a breakdown on the post counts of data collected in an eight-week period. On the average, there are over 100 posts per week, indicating a moderate discussion activities going on the forum. Aside from Group A, the other 4 groups had comparable count. Note that the mentor of Group E is very active in the discussion forum, almost doubling the posting counts of the all the other mentors and accounts for almost a third of the posts in the group.

Table 2 gives an account on the mentor initiated discussion threads, the students' responses, and the follow-ups by the mentors. The last column indicated the average length each discussion thread. From which, the average thread length in Group E is the longest, by an average of 2 more posts than the other groups. This can be attributed to the active involvement of the mentor of the group.

Table 1: Breakdown of post counts in the forum

Group	# of students	Student posts	Mentor posts	Total posts
A	6	81	19	100
B	7	163	21	184
C	7	153	30	183
D	6	140	23	163
E	7	132	51	183
Total	33	669	144	813

Table 2: Number of mentor initiated discussion threads, number of responses by the students, and number of follow-ups posts by the mentors

Group	Mentors initiated discussion threads	Students' responses	Follow-ups by mentors	Avg. # of students' posts per thread
A	8	34	4	4.3
B	12	63	6	5.3
C	12	72	8	6.0
D	11	60	7	5.5
E	9	68	18	7.6
Total	52	297	43	5.7

Initiating Styles

By analyzing the 52 posts among the 5 mentors (see Table 2), we are able to categorize the styles of the thread initiating articles into 4 categories:

(1) Direct questioning - asking questions in a straightforward way. This mentor-questioning/student-answering style usually results in no discussion; thus causing short threads.

(2) Context explaining - providing background information to make a question more explicit and influencing the directions of the discussion. For example, one mentor initiated the thread *Which programming language will you choose to teach in high school?*:

> *In the high school computer science curriculum, computer programming accounts for 14 to 16 hours of lectures . . . . If you were a high school computer science teacher, which programming language will you teach? Why?*

Although the mentor could simply asked the question, by pointing out that there are only 14 to 16 hours of lectures allocated to teaching programming language, the discussion are therefore more focused and in depth.

(3) Experience sharing - sharing personal experience before prompting the question. For example, in initiating the thread *Have you met a ferocious teacher?*:

> *When I was in Junior high, I had a ferocious math teacher, most of my classmates disliked her, but not me (perhaps because I was good in math).... What kind of teachers would you like to be? What kind of professional relationship would you like to uphold with your students? ...*

Sharing personal experiences helps bridging the gaps between the students and the mentors. Furthermore, students are better able to immerse into the circumstance so described and therefore inducing more discussions.

(4) Greeting - starting by polite "how are you" like remarks or social conversations before prompting the question. This type of posting gives the impression of politeness; thus the discussion tends to be polite in nature. However, as indicated in Table 3, mentors are more reluctant in using this style in originating discussion thread.

As Table 3 indicated, direct questioning and context explaining styles are the favorites among the mentors.

Table 3: Categorical account of strategies used by mentors in initiating discussion threads

Strategy \ Mentor	A	B	C	D	E	Total
Direct questioning	5	4	2	4	4	19
Context explaining	1	3	7	5	1	17
Experience sharing	1	3	2	1	3	10
Greeting	1	2	1	1	1	6

Follow-Up Styles

The 5 mentors had a total of 43 follow-up posts (see Table 2). Six communication styles can be categorized from those posts.

(1) Direct answering - answering questions raised by students directly. Though quick to the point, this style provides few opportunities for further interactions with the students.

(2) Suggesting - offering several possible alternative solutions rather than giving one "right" answer.

(3) Agreeing - recognizing and agreeing with the viewpoints of the students. This gives students great self-esteem; thus more willing to participate in future discussions.

(4) Summarizing - summarizing students' discussion and refocusing.

(5) Relating - explore an issue in depth or bring up related questions. For example, when discussing about what to teach on operating systems (O.S.), one student wrote:

> *At first, I thought teaching Win95/98 is not necessary ....a senior teacher suggested that using Win95/98 as an example when lecturing on O.S. I now think that the students can probably better receive the lectures with the aid of a real working O.S. ...*

The mentor's reply was:

> *Sure it was a good starting point. But don't forget to give some examples when talking about the Win95/98 architecture. BTW, what are some of the most important characteristics of Win95/98 in terms of the O.S. architecture? ...*

(6) Questioning - asking for clarifications, mainly to solicit ideas and responses. For example, on the issue of Who is to blame, the teacher or the student?, one student wrote:

> *... Well, if the teacher comes to class well prepared, then it must be the students' fault (not learning the material taught) ...*

And the mentor's reply was:

> *Really? Sometimes I thought I was really well prepared for the lecture and the students were all very earnest too. But they still cannot comprehend everything that I talked about. I feel so discouraged when that happened. So what went wrong? ...*

As indicated in Table 4, the agreeing and relating styles are used most often, followed by the direct answering style.

Table 4: Categorical account of styles of mentors' follow-up posts

Style \ Mentor	A	B	C	D	E	Total
Direct answering	1	2	0	1	5	9
Suggesting	0	3	1	0	0	4
Agreeing	3	0	6	0	6	15
Summarizing	0	1	1	2	0	4
Relating	1	1	1	6	4	13
Questioning	0	0	1	1	4	6

Conclusions

In this study, electronic forum was used as an instrument to enhance a class of 33 preservice teachers' teaching preparation course work. They were divided into 5 groups, each group was lead by an experienced teacher acting as mentor and forum moderator. The mentors were asked to initiate group discussion topics that could entice students to participate in the discussion and to follow-up on the responses by the preservice teachers. It was found that active participation by the mentor in the discussion can prolong the discussion thread. Timely follow-up posts by the mentor was perceived by the preservice teachers that the mentor is interested in their comments.

Further analysis of the 5 mentors' 52 initial thread generating posts, four styles can be abstracted: the direct questioning, the context explaining, the experience sharing and the greeting styles. It was found that the 5 mentors most often post a question in straightforward fashion (direct questioning). Context explaining style was used quite often too.

On the follow-up posts, it was found that six categorical styles exist among the 43 posts: the direct answering, the suggesting, the agreeing, the summarizing, the relating and the questioning styles. Here the agreeing, the relating, and the direct answering styles were used most often. It seems that the follow-up posts in those 3 styles are easier to generate.

The generalization of the communication styles of the mentors is a first step toward formulation of the necessary skills of the mentors in a telementoring environment. Further investigation into the effect on students' will and posting tendencies in response to the different styles of mentoring is necessary to obtain insights into the best telementoring communication styles.

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