



BRIEF COMMUNICATION

Group Dynamics and Social Interaction in a South Asian Online Learning Forum for Faculty Development of Medical Teachers

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A B S T R A C T

Background: Group dynamics of online medical faculty development programs have not been analyzed and reported in literature. Knowledge of the types of content of posted messages will help to understand group dynamics and promote participation in an asynchronous learning environment. This paper assesses group dynamics and social interactivity in an online learning environment for medical teachers in the South Asian context.

Methods: Participants of a medical education fellowship program conducted by the Foundation for Advancement of International Medical Education and Research (FAIMER) Regional Institute at Christian Medical College, Ludhiana (CMCL) in India interact on a listserv called the Mentoring-Learning Web (ML-Web). Monthly topics for online discussion are chosen by fellows through a standard tool called “multi-voting”. Fellows volunteer to moderate sessions and direct the pace of the discussion. We analyzed the content and process of the discussion of one particular month. The emails were categorized as those that reflected cognitive presence (dealing with construction and exploration of knowledge), teacher presence (dealing with instructional material and



learning resources), and social presence, or were administrative in nature. Social emails were further classified as: affective, cohesive and interactive.

Results: Social emails constituted one-third of the total emails. Another one-quarter of the emails dealt with sharing of resources and teacher presence, while cognitive emails comprised 36.2% of the total. More than half of the social emails were affective, while a little less than one-third were cohesive.

Conclusion: Social posts are an inevitable part of online learning. These posts promote bonding between learners and contribute to better interaction and collaboration in online learning. Moderators should be aware of their presence and use them as tools to promote interactivity.

Keywords: Online learning, distance learning, social interactions, faculty development, South Asia, medical education

Introduction

The internet subscriber base in India in the year 2007 stood at 9.27 million¹. However, online learning has not been sufficiently exploited in India and other South Asian countries and is a relatively new medium for providing continuing education for health professionals.

In order for learning to be effective, dialogue and interactivity between teachers and learners, and between learners are required². Harasim³ describes peer interaction amongst students as a critical variable in learning. In order to 'come to know', learners need to construct their knowledge by acting upon it, reformulating it, making their own interpretation of it, sharing it with others and building upon these ideas and concepts through the reactions and responses of their peers. Classroom teaching in India is often didactic and hierarchical, so Indian learners hesitate to interact freely with their instructors. This hesitation spills over into their behavior in online discussions.

The goal of a learning community is to foster a culture of learning where students share each other's efforts to gain a deeper understanding of the subject by forming their own perspectives⁴. Learning in a group has positive effects on learners in both the traditional classroom and online settings⁵. 'Social presence', or the degree to which participants in online communication feel affectively connected to one another, is important for student satisfaction and success in online courses⁶.

The Foundation for Advancement of International Medical Education and Research (FAIMER) runs a two-year fellowship program at its Regional Institute at the Christian Medical College, Ludhiana (CMCL) in India. The program targets health professions educators from a number of countries who have the potential to play a key role in improving health professions education at their schools⁷. Online learning has been used as a faculty development tool for medical teachers at the CMCL-FAIMER Regional Institute (FRI) since 2006. The present paper evaluates the dynamics of group learning in the CMCL-FRI listserv and explores methods to encourage interactivity in online learning groups.

The Fellowship Program

The CMCL-FAIMER fellowship program seeks to impart leadership and management skills along with pedagogical training. The two-year fellowship program includes two residential sessions and two online distance-learning sessions. The online session, called



the ‘Mentoring and Learning Web’ (ML Web) lasts 11 months (Table 1). The process followed in the fellowship program has been described in detail in a previous paper⁸.

Table 1: Structure of fellowship program

Timeline	Jan 2006	Feb -Dec 2006	Jan 2007	Feb-Dec 2007	Jan 2008
Attending Class	Fellows of Group A	Fellows of Group A	Fellows of Group A and B	Fellows of Group A and B	Fellows of Group B and C
Duration of session	One week	11 months	One week	11 months	One week
Description of session	Residential session	Online session with Batch 1 as primary participants	Residential session with overlap of 2 days for batches 1 and 2 to interact and develop co-mentoring partnerships.	Online session with Batch 2 as primary participants. Batch 1 fellows provide mentoring support. They receive fellowships at the end of this session	Residential session with overlap of 2 days for batches 2 and 3 to interact and develop co-mentoring partnerships

(Modified from Anshu et al.⁸)

In 2007, 15 individuals were selected into the fellowship from 12 medical schools in five different states of India. Their ages when selected were between 27 and 49 years, with a median of 33 years. Their academic ranks ranged from lecturers with one to two years experience in teaching to professors with over two decades of experience. To ensure that the participants had the basic computer literacy skills to benefit from the program, the application process had been made online.

Methods

This paper analyzes the group dynamics across the CMCL-FAIMER listserv during the ML Web sessions. Fellows select the topics for discussion in the monthly ML Web sessions by multi-voting. Multi-voting is a standard tool to arrange and order a list of ideas by importance. It is a group effort where every member of the group is allowed to give a number ranking the importance to each suggested topic. Those topics receiving highest rankings from the group get further attention. The fellows then volunteer to moderate sessions on topics of their interest.

To illustrate the process, we have randomly selected the online interactions of one month’s ML Web session, on the topic ‘Web-based Learning’. We analyzed the number and content of emails exchanged during the month.

Emails were categorized as those that reflected cognitive presence, teacher presence, social presence and administrative emails using a modification of the Community of Inquiry model⁹ which defines cognitive presence as the exploration, construction, resolution and confirmation of understanding through collaboration and reflection in a community of inquiry. Teacher presence included emails with direct instruction to learners and learning resources. Resources included references to relevant journal articles, internet resources and other information exchanged across the listserv. Administrative emails were those that specified deadlines for responses and emails sent by the moderators and faculty to streamline the discussion when it drifted off-track. Social presence is described as the ability to project one’s self and establish personal and purposeful relationships. We also identified three main aspects of social presence within emails: effective communication, open communication and group cohesion⁹. We further categorized social responses into affective (dealing with values, beliefs, feelings, and emotions), cohesive (dealing with group presence and commitment) and interactive (building up social bonds) according to Rourke et al.’s¹⁰ categorization. The



emails were classified into the above categories by two authors (A and TS) independently, and a consensus was arrived at in cases of discrepancy. A retroactive exemption was granted by the CMCL Institutional Ethics Committee to analyze the data.

Results

A total of 392 emails were exchanged during the month, of which 297 emails (76%) strictly pertained to the topic of discussion, i.e., web-based learning. Table 2 shows the analysis of participation during the month. Fourteen fellows and two senior fellows contributed 359 emails, while 8 faculty members contributed 33 emails. On average, 12 emails were exchanged each day.

Table 2: Analysis of number of emails and participants during the month

Variables	Range	Average
Emails per day	1-50	12.6
Participants per day	1-9	4.82
Fellows emails per day	0-23	11.5
Faculty emails per day	0-8	1.06

Fig. 1 shows the distribution of emails according to content. Emails that reflected cognitive presence comprised 36.2% (142 emails). A total of 25.5% (100 emails) reflected teacher presence and shared resources. Social presence was reflected in 131 (33.4%) emails. Nineteen (4.8%) emails were administrative in nature.

Analysis of content of social mails:

The 131 social emails were analyzed for content. Seventy-five (57.2%) were affective in nature. Most of these affirmed a fellow's belief or expressed an opinion on the ongoing discussion.

“To me web-based learning was more about utilizing the web for viewing the large load of information. Thanks to the links posted, I now know that web-based courses can be created.”

In the first week of this particular month, responses were low and the moderators tried to unravel the reasons behind this. Personal phone calls, text messages and emails revealed that many learners were awed by technical jargon. Moderators then decided to change the direction of the discussion into one that was more relevant to the needs of the learners. When learners were asked to respond to the reasons why web-based technology was not popular, one participant responded:

“People are scared to look silly and ask questions. It is one of the biggest mental blocks with use of online learning. Even on this ML web discussion, people aren't responding as much because they are hesitant to ask questions and remove their doubts.”

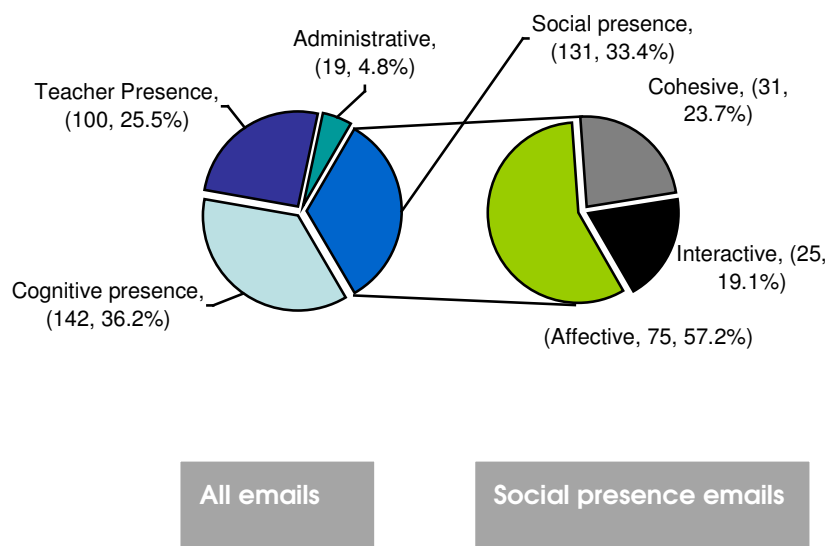


Figure 1: Distribution of emails according to content (n= 392)

After initial hesitation, most learners found it easy to voice their difficulty in understanding and to ask for clarifications or help.

“Is our traditional classroom teaching not good enough that we need to introduce this new technology, just because it is there? What is the need for web based learning in medical education?”

“Is there good, feasible, cost effective software for library management and student attendance which you are aware of?”

On a number of occasions learners felt free to reveal their weaknesses and emotional sides.

“I was concerned about how technical it would get, but I'm really glad you started with something in such a easy language which I can understand”.

“One problem which I'm worried about is access to computers. Not more than 25% of my students have access to computers. I feel it would be unfair to the rest if I included only the 25% in this exercise.”

Group support, encouragement and advice helped learners overcome resistance in their work settings when they tried to implement their curriculum innovations.



"I can help you understand the nuances of using MS Access software in creating a question bank of multiple choice questions."

"Try using E-granthalaya software from NIC for Library Management and Insproplus for Medical College management including student attendance."

"Don't be a bull in a china shop. You will lose outside support from your colleagues faster than you realize it. Involve people as much as possible, though it will mean a lot of meetings which go nowhere, it will save a lot of headaches later."

The affective category also included compliments and congratulations for the previous months' compilation of web discussions in the form of a website.

"You all made learning fun and stimulated us to google more and find more resources."

The listserv also served as a sounding board to share successes and failures.

"We have managed to include a course on computers in the syllabus of our university. This course is mandatory for all medical, dental and nursing students. This course aims to provide baseline knowledge of computers."

Cohesive emails (31, 23.6%) included posts by previous months' moderators thanking the group for their involvement, words of encouragement to other participants on their academic and personal successes, and positive remarks to otherwise quiet learners for their participation to get them involved in the discussion.

"I'm glad you asked this question on Moodle. Especially when it comes to e-technology, it is almost impossible to keep up. I always feel ignorant."

Twenty-five (19%) emails were interactive in nature and included light banter and playful exchanges between learners.

"My only worry is that when people are not moderating they forget to respond equally feverishly!"

Learners used emoticons that are available free on most online email services to express affect. These icons and cartoons helped to display emotions like anger, frustration, dislike, happiness, boredom, awe, joy etc.

"I find it strange that introverts like you turn into extroverts online. ;-)"

Participants felt free to disclose personal likes and dislikes. When asked for suggestions to improve utilization of web-based technologies in their classroom, one member responded:



“So while lesser mortals like me resort to giving handouts and material on CDs or floppies and term it Web Based Learning (!), wizards like you form e groups.”

Discussion

There are a number of similarities between classroom teaching and online learning. Like in conventional classroom teaching, social bonding can occur between online learners, and this facilitates a greater exchange of views and resources between participants.

Early in the online exchange, we found that the quality of participation was uneven and learners who were not familiar with the medium initially sent only social responses. This social interaction was not discouraged as it meant even the shy learners were reading the emails and gaining information. Eventually, the peer pressure to perform well ensured that all fellows read relevant literature and responded to the discussion. The average of almost 88 mails a week exchanged between learners is testimony to the ample, to and fro exchanges between them.

During the course of our online discussions, we found that affect was expressed in a number of ways, including through the use of emoticons, humor, and self-disclosure. Humorous banter, teasing, and joking allowed decreased friction and differences between group members and increased the cohesiveness of the group. At times when there was a surge in social emails that diverted the group's attention from the topic that was to be discussed, an email from the moderators or faculty asking a provocative or debatable question about the topic usually brought the group back on-track.

We found that multi-directional conversations enhanced the quality of discussion especially because learners were no longer passive recipients. Fellows were able to discuss their tentative understanding, search the literature and reflect in order to develop concepts. It was not enough when the moderators or faculty simply provided information or gave learners access to it. The key to successful moderation was to guide the group towards various kinds of inputs relevant to the topic under discussion, rather than for faculty or moderators to directly provide material.

Like Bagherian and Thorngate¹¹ we found that motivation and drive were lacking when the interactions or emails exchanged were purely academic. Evidence that one's comments are being read is a critical feature in meaningful interaction. Responses and rejoinders indicate interpersonal support, encouragement and acceptance of the learner by peers¹¹. Cohesive responses build and sustain a group commitment¹². The online medium has the capacity to support highly affective interpersonal interactions even without the opportunity for non-verbal cues such as facial expression and eye contact¹³. Cutler explains that “the more one discloses personal information, the more others will reciprocate, and the more individuals know about each other, the more likely they are to establish trust, seek support, and thus find satisfaction”¹⁴.

Knowledge is constructed through the active participation of the learner in trying to arrive at and articulate their own understandings of new ideas and concepts^{15,16}. In order to 'come to know', learners need to come to their own interpretation of information and build upon ideas and concepts through the reactions and responses of their peers. Nichani¹⁷ outlined three factors important to making an online community successful: the leader, the purpose of the group and the social interactions. The moderators' role is organizational and moderators set up the agenda for the discussion and manage interactions. They also have a social role of creating a friendly learning environment and an intellectual role of enhancing learning by asking pertinent questions and clarifying points. The main jelling factor is the social interactions between the people within the group.



Too many purely social mails can end up discouraging learners from reading their emails. Studies have shown that students indicate that they value social expression that is embedded in discussions of content, but believe that purely social messages should be delegated to alternative forums¹⁸. We believe that social emails are inevitable on an online discussion forum. However, the art of effective moderation must be learnt so that the online learning activity can be streamlined into discussing relevant issues and does not become an inconsequential chat group.

Moderators should not dissuade learners from bonding online. Moderators need to know when to intervene, how to provoke learners into responding and when to diffuse tensions. Social messages help moderators understand the needs of learners and then suitably alter the course content to meet their varying needs and interests. We believe that social interactivity helps in sustaining the group. It enhances the quality of discussions and the interest of the participants. Moderators must accept social interactions as inevitable and use them to enhance the quality of their courses.

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