

Conference Components

The online conference was set up as a metaphor of a conference held at an island resort. A drawing of the island showed buildings with the following names and purposes.

Arrival Harbor – Welcome Center: Greeting area for participants

Sponsors and Exhibitors: Area to discuss sponsors products

Main House: area for keynotes, panels, conversations, and workshops

Poolside Café: Area for introduction, math news, daily questions, recommended articles, participant networking, education stories/quotes and other components.

Greenroom: Area for facilitators to test materials, ask questions and work with conference administrators.

Conference Online Tools

The online conference used a software program that was accessible by an Internet browser. Participants using PC or Macintosh platforms could access the conference Web site without special software.

Facilitators were able to post materials to the conference sessions that they hosted. Participants were able to send messages to each session to ask questions, share information and carry on discussions with facilitators or participants. Facilitators and participants could also exchange private e-mail.

Photographs, drawings, tables and other graphic materials were included in the facilitators' materials. Audio, video and simulations were not included in this conference.

A separate software program was used to provide a live (synchronous) chat for about two hours.

As participants logged on and read messages, the software tracked what they had viewed. The next time they logged on, it showed the participant only the new messages.

The conference is open 24 hours a day, seven days a week. Participants have the flexibility to schedule their learning time around their professional and personal commitments.

Participants could attend all aspects of the conference. This was a major advantage over face-to-face conferences where sessions run concurrently and attendees must make a decision about which session to attend.

Computer e-conferencing represents a new domain for educational interaction and it is essentially collaborative and team based. Shared experiences and sharing experiences are enabled by the software, computer, and Internet.

Assignments could be made and worked on by individuals or groups.

Facilitators are able to provide significant one-to-one information to participants when they need it or within a few hours of when a question is asked. The amount of time available to participants is increased because it is not confined to the traditional one hour session at a conference. Contact is ongoing as the group does not leave. Sessions can last a day, week, or a month.

Participants react to one another's discussions by critiquing the work, making additional suggestions, providing other information, or asking for additional information. The process contributes to higher developmental levels of understanding and their collaborative work skills are honed by the requirements of the conference.

The acts of formulating and verbalizing one's own ideas as well as responding to ideas by others are important cognitive skills. Collaboration contributes to higher order learning through cognitive restructuring or conflict resolution. Whereas in the face-to-face classroom environment, up to 60-80 percent of the verbal exchange during class time comes from the teacher (Dunkin & Biddle, 1974; McDonald & Elias, 1976). This pattern is the opposite in computer conferencing (Lane, 1990)

Analyses of various online courses indicate that the instructor contributes 10-15 percent of the message volume and the number of conference messages (Harasim, 1987; Winkelmann, 1988). This is not a correspondence course by modem; interaction in this medium is significantly higher than in traditional conferences or classes.

The availability of an archived transcript of the conference facilitates a reflective review of the previous comments and discussion.

As a medium, it is particularly conducive to brainstorming, networking, group synergy, and sharing information. It is an information rich environment that can meet multiple intelligences and learning styles.

Facilitator Training

Facilitators need to be trained and assisted in producing materials for online e-conferences. Producing video, audio, text and other materials requires a new and different set of skills than those possessed by most facilitators or experts who might deliver sessions on an e-conference. Facilitators need to receive training in how to

facilitate online e-conferences. They need to understand how to promote interaction and create an environment that enables collaboration. Additionally, they need information in adult education theory and application so that participants are encouraged to become self-directed and take responsibility for initiating interaction.

Participant Training

Participants need to learn how to work effectively in an e-conferencing environment. They need to receive information about how to interact, how to participate, how to collaborate, and how to become self-directed in the environment so that they get the most from the time they spend at the conference. This need can be fulfilled by explanations of what constitutes effective interaction and examples of effective interaction.

As teachers participate in more e-conferences and develop more computer skills, this will become another skill for them. It will also become useful as teachers increasingly are required to use computers for their daily work.

Communities of Learners

A great deal of material is found in the literature about the benefits of developing communities of learners. Research over the years has emphasized the social nature of learning and that people learn best when interaction is enabled and they are able to participate as full members of a community. Membership in the community enables participants to transcend the interaction with the content to a point where they are able to contribute information and thus share it with other community members.

This enables the dissemination of new practice, unites the participants, and establishes trust. As community members experiment with new approaches and ideas, they integrate them into their knowledge base. The climate of collaboration contributes to an acceptance of new ideas and learning. It allows a place where a risk can be taken and is supported. Being a member of a community of learners is something that can traditionally occur in a face-to-face class or face-to-face conference because of the temporary nature of a class or conference. However, if supported correctly after the conference, the community that focuses on a common interest may endure and build a stronger learning community.

Research Questions

A variety of research questions were posed about the conference.

- Does group computer conferencing provide a useful and economical method of interaction for mathematics instructors to continue their professional development?
- Did the ability to go to all aspects of the conference, or to choose the sessions that were of individual interest have a higher impact on learning; was it overwhelming and contributing to an information glut for participants?
- Does an online conference meet the needs of the adult education methods of learning?
- Does an online conference meet the multiple intelligences and learning styles of a varied group of participants?
- What types of interaction took place and what was the impact of the interaction?
- Does the asynchronous mode meet learning needs?

- Is an online conference an economical replacement for attending national, state, or local mathematics conferences that continue professional development for mathematics teachers?
- What were the reactions of the participants after the first and second week of the computer conference.
- What learning impact, if any, can be observed in participants?
- What are the components of a model that would best meet the requirements of this audience?

Conference Interaction Model (Lane 2001)

Component	Conference Developer	Conference Facilitator	Conference Participant
Conference Cost	Garner funding, set lowest reasonable fee to cover all expenses	May require honorarium	
Conference Length	1 1/2 week for every day at a face-to-face conference; 3 day conference = 4.5 weeks. Longer conference allows processing time for participants which aligns with the adult learning model. Use weekends	Set aside facilitation and interaction time; one week online conference = 2 hours per day – 14 hrs per week	Set aside interaction time; One week online conference = 1.5 hour per day = 10.5 hrs per week
Conference Notification and Marketing	One year prior. 3 month follow-ups and ability to register. e-mail about start day prior to and day of conference	One year prior 3 month follow-ups	One year prior 3 month follow-ups
Conference Sessions	Plan sessions and work with facilitators to help learners achieve goals. Use content standards where available to define goals and sessions	Begin session planning upon acceptance. Use standards to develop session and move participants toward achievable professional goals	
Software for learning environment	Provide software, training, ongoing support 24/7 for developers, facilitators, participants. Provide materials and examples of good interaction and collaboration	Develop skill in using software and interactive/collaborative environment before writing outlines and developing content	Prior to conference, log on, experiment with software. Read materials on interaction and collaboration
Facilitators	Schedule facilitators and	Provide outline of	

	sessions. Breakouts for grade bands.	session, media used, breakout sessions for grade bands.	
Professional Instructional Designers and Media Developers	Review outlines with facilitators, plan media, activities, interaction, development of learning community. Support facilitators, provide training, develop content	Works with professional developers to develop content	

Conference Interaction Model (Lane 2001) (continued)

Component	Conference Developer	Conference Facilitator	Conference Participant
Learner Centered Delivery	Review learner centered delivery with facilitators. Provide materials and examples of good learner centered delivery and response, how to move from passive to active learning.	Reviews and works toward learner centered delivery as a role model for learners. Strives for active, exploratory, inquiry-based learning. Acts as role model.	Prior to conference, reads materials on learner centered delivery, self-direction, moving from passive to active learning
Adult Learning Theory is Basis of Conference	Adult learning theory is based on adults accepting and wanting responsibility, orienting toward the future, valuing initiative, opening to opportunities, solving problems, being creative. Provides information and structure for adult learning. Monitors conference and provides feedback to facilitator	Facilitator sets the climate for learning, establishes a structure for mutual planning, diagnoses learning needs, formulates directions for learning, designs and manages a pattern of learning experiences, and evaluates results. Acts as role model	Prior to conference, reads materials on adult learning theory, strives to understand where they can improve self-directedness, movement to active and independent learning.
Content delivery meets multiple intelligences and learning styles of learners; multipath progression	Use methods to reach all MI/LS. Understand learning needs of all learners. Provide MI/LS assessments	Use methods, content, activities to reach all MI/LS Understand learning needs of all learners and personal delivery preferences	Understand personal MI/LS and how to best meet them and ask for help to meet specific needs
Participant Release Time	Work with districts whose to get release time from duties by attendees which can be covered by others without hiring a substitute - playground duty, lunch duty,		

Conference Interaction Model (Lane 2001) (continued)

Component	Conference Developer	Conference Facilitator	Conference Participant
Define and Train in Interaction and Collaboration	Predicated on responsiveness and distinctions between interactive, quasi-interactive (reactive), and non-interactive communication. Quasi- and interactive require that sender and receiver roles be interchangeable with each subsequent message. Learners interact with content, instructors and other learners. Provide and insist on interaction and structure. Provides materials to facilitators and learners about interaction and how it is effectively done to get the most from the conference. Monitor conference and provide feedback for improvement.	Reads materials on interaction. Understands definitions, how to evoke each, and how to interact in each mode comfortably. How t structure collaborative activities. Structure conference to meet all interaction needs. Provides extensive interaction to learners. Acts as a role model.	Reads materials provided on interaction and collaboration. Understands definitions. Attempts interaction and collaboration. Asks for feedback on how to improve. Learns how to interact and collaborate with a high comfort level
Collaborative Learning	Trains facilitators and reviews their work in developing a session that fully utilizes collaborative learning. Trains facilitators and learners in how to be a part of a collaborative learning group.	Develops learning activities that are carried out using peer interaction, evaluation, and/or cooperation with at least some structuring and monitoring by the instructor.	Through formulating information or ideas in their own words, and receiving feedback and evaluation on these formulations from peers, knowledge, thinking skills, and meanings are socially constructed.
Promotes Equal Interaction: No Competition	Conference does not regulate discussion	Encourage all types of succinct discussions but keep it focused. Encourage ongoing discussion by asking questions.	Strives to keep discussions at a high level, on topic, succinct, takes irrelevant conversations to other venues.

Conference Interaction Model (Lane 2001) (continued)

Component	Conference Developer	Conference Facilitator	Conference Participant
Scheduling Support	Provide materials on how to structure time for the conference. Key pieces to read, time to allot on a daily basis, what can be done on weekends. Structure should enable learners to stay with the group and learn despite not having read all materials. Downloading materials is not the same as learning from the materials. Insist on short core materials, backed up with more extensive background materials, Web resource sites, books and articles.	Structures session so that all content does not have to be read at once and can be read over the period of a week. Plan activities to further learning in which it is not necessary to have read materials. Provide short pieces of core materials that can be read in five minutes to keep learners in the loop. Provides levels of resources. Tell learners what to read to stay in the session loop.	Commit to staying in the session loop with minimal daily reading. Review materials and time needed. Schedule that as appointment and don't veer from the commitment. Downloading material and not reading it is not a commitment. It is passive learning
Learner Goals	Understand that each learner will have specific goals. Help learners determine and set goals so that the conference meets their expectations	Structure materials so that learners set their goals and know what goals can be met through a specific session. Discuss skills, competencies, basic to advanced information to be delivered, how activities will contribute to learning and which grade bands will benefit most. Provide information about who should not participate in the session if necessary.	Set personal goals to achieve by attending the conference. Do not assume that personal goals and conference goals are in sync. Learners should not feel that they must participate in all sessions. Set realistic goals to meet within realistic timelines. Commit to trying activities with students if appropriate.
24/7 support	24/7 computer support	Responses within 24 hours or before if urgent	Assumes some responsibility for responding to other students when necessary or giving moral support

Conference Interaction Model (Lane 2001) (continued)

Component	Conference Developer	Conference Facilitator	Conference Participant
Asynchronous with some synchronous interaction	Provides list serves or area for each session and assignment, provides synchronous learning environment which may include online chat, whiteboard, audio conference, video conference	Uses all tools to meet student MI/LS styles	Learns to use all tools
Enables inter-participant interaction	Provides all types of areas for discussions	Allows learner discussions to flourish on content. Encourages conversations to avoid domination by one or several learners.	Participates with all groups, does not capture and dominate a topic or conversation.
Time to Process information	Provide structure to allow learners reflection time. Too much content is a glut and may never be processed and used. Prevent inundation.	Construct session to contribute to the application of what has been learned. Thoughtfully choose useful resources	Learners put ideas into words while applying information, requiring intellectual effort to aid comprehension and retention.
Develop and Support a Learning Community	Provides the space to allow the group to form a community of learners. The space becomes a place. The expertise that members provide leads to more use of the group by all users.	Through collaborative learning, learners move toward logging on more often and using the group as a learning community.	Learners function as a learning community, offer support, advice, suggestions, and ask for same.
Evaluation of Conference	Assess conference for growth by facilitator and learner. Attempt to determine learning impact on K-12 students which can be attributed to the conference.	Strives for growth and new instructional skills. Reviews evaluations to determine how best to meet the needs of learners in future conferences	Provides information about unmet needs and expectations, how content and activities were useful and transferred to the classroom, if/how this impacted student learning
Archive of Conference	Keeps all materials in order from conference as permanent PDF file or CD-ROM		