Asynchronous Learning Networks (ALNs) use computer-mediated communication to support online courses of study, in which anytime, anywhere access to interactions among the students and the teacher/facilitator is a key element. In addition to asynchronous class discussions and group projects, other elements frequently incorporated are use of the World Wide Web and of web-based tutorials or simulations, and/or synchronous web-mediated communication sessions.

The asynchronous nature of the primary mode of class interaction leads to new paradigms for teaching and learning, with both unique problems of coordination and unique opportunities to support active, collaborative (group or team-based) learning. The papers in this session deal with the nature of and scaffolding for collaborative learning in ALN courses.

The first paper presents a content-analysis approach to comparing discussions in face-to-face (FTF) classes with ALN classes. The authors worked with eight discussion transcripts from groups that were using the case study method to drive the discussion. Four transcripts were ALN and four FTF; but each of the four groups participated in both modes. Their findings provide evidence that ALNs generate high levels of cognitive activity, at least equal to, and in some cases superior to the cognitive processes in the FTF classroom.

The research design is innovative and exemplary, because unlike most comparative studies of modes of learning, it did not involve self-selection of mode by students. 120 seniors in an information systems capstone class were organized into a 1X2 repeated measures experiment with counterbalanced order of the student sequence. Each student participated in two case study discussions, one in a traditional FTF mode and the ALN, randomly assigned to control for order effects, group composition effects, and effects of the first case discussion upon the second.

In the FTF discussions the instances of cognitive processes were predominately in the lower order ‘Exploration’ category while the ALN discussions contained more high-level cognitive processes such as the ‘Analysis’ category. The findings show that even though the same students discussed the same cases, in discussions lead by the instructor, following identical discussion plans, that there were substantial differences between the FTF and ALN discussions.

The second paper explores the concept of knowledge negotiation as part of collaborative learning in ALNs. The paper presents the evolution of computer supported collaborative work (CSCW) into CSC-Learning and its use as a basis for the European Union’s project to create a Basic Support for Collaborative Learning (BSCL) framework. The negotiation studied by this paper is that needed to support the knowledge building of the online classroom.

In adapting the concept of negotiation to collaborative learning, they have defined “knowledge negotiation” as a phase of collaborative knowledge building. It is designed to ‘scaffold’ the social process of constituting shared knowledge in a group.