Carla Currin van de Sande* (carla.vandesande@asu.edu), School of Mathematical & Statistical Sciences, ASU, 1711 Rural Road, PSA633, Mail Code 1804, Tempe, AZ 85287, and Frank S. Marfai (frank.marfai@asu.edu). Open, online, homework help forums: Fostering a culture in which communication reflects a conceptual orientation toward the attainment of quantitative reasoning and literacy skills. Preliminary report.

Students from around the world are using open (public), online, homework help forums to seek help from the larger mathematical community. Forums with a spontaneous participation structure allow students to post problem-specific questions that can be viewed and responded to asynchronously by others who have the experience, time, and willingness to help. Investigations of existing forums for mathematical help shows that the nature of these forums ranges from cheat sites (where students are provided with worked solutions) to sites that tend to operate more consistently with pedagogically sound principles of learning and instruction (such as providing hints and/or asking questions). In this talk, I share preliminary analyses of interaction in a help forum designed to nurture a culture in which communication reflects a conceptual orientation. The etiquette of this forum asks participants to: 1) exhibit intellectual integrity by sharing thoughts and not providing solutions; 2) respect the learning process of others through responding and promoting thinking and activity; 3) post with meaning by including explanations and justification; 4) strive to make sense by posting the context of the problem; and 5) build up this learning community through demonstrations of politeness and patience. (Received September 21, 2009)