1056-J1-1866   **Volker Ecke*** (`vecke@wsc.ma.edu`), 577 Western Ave, Westfield, MA 01086, and **Christine von Renesse**, **Julian Fleron** and **Philip Hotchkiss**. *Games and Critical Thinking.*

The investigation of games can provide worthwhile material for an inquiry-based Mathematics for Liberal Arts course. For many students, exploring strategies and thinking critically about good moves is naturally motivated by their desire to play well and win (yet, we also make sure the competitive aspect does not turn off others). In addition, the absence of common triggers for math anxiety (such as formulas) allows students to give mathematical investigations a fresh second look.

We have successfully used so-called connection games—such as *Hex, ConHex, Stymie*—in our "Explorations of Mathematics" courses.

In class, we use small group and whole class discussions to consider, clarify and refine the various ideas students develop. Questions such as: Is that always the case? Will your suggestion always work, no matter what your opponent does? can lead the class into proof territory.

Beyond these investigations into strategy, the class also explores mathematical connections to large numbers, complexity, geometric tessellations, and computational tractability.

In this talk, we will share some of our materials, pedagogical considerations, and our experiences in the classroom. (Received September 22, 2009)