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Shonda Kuiper* (kuipers@grinnell.edu), Department of Mathematics and Statistics, 1116 8th Ave, Grinnell, IA 50112. *Playing Games with a Purpose*.

This talk presents multiple strategies for using games in undergraduate statistics courses. Traditionally, we think of games as a distraction, just something that we do for fun. However, other disciplines have shown that well-designed games can dramatically impact learning by: (1) having a low threat of failure early on, but provide a challenging environment that grows with the students' abilities; (2) fostering a sense of engagement; (3) representing realistic but simplified models of current research in a variety of disciplines; and (4) providing an intrinsic motivation for students to want to learn. In addition to developing basic skills and understanding of material, games can encourage personal interest and social investments that lead students to take charge of their own learning. By making students grapple with intriguing simulations of real-world problems that demonstrate the intellectual content and broad applicability of statistics as a discipline, games can encourage students to incorporate statistical thinking into any field they are interested in. (Received September 20, 2011)