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David G Taylor* (taylor@roanoke.edu), MCSP Department, Roanoke College, 221 College Lane, Salem, VA 24153. *Combining Hands-On Probability with Calculations: Enhancing Quantitative Literacy through Textbook and Course Design.*

Roanoke College has a three-week, intensive learning term during the month of May each year; the development of my course, “The Mathematics of Games,” led to a class that meets for three hours a day, five days a week, during our term. On a typical day, students first play a game guided by specific events to watch for and keep track of. In groups, students match what they see with some elementary and immediate calculations that give the “true” probability of those events. This process repeats, with occasional 15-minute discussions led by the instructor that further the students’ knowledge of particular chance events. By the end of the course, students have developed a better intuition for probability along with an enhanced understanding and appreciation of quantitative literacy in today’s world. More recently, I have developed a new textbook for this course that incorporates a model that puts each game and its rules first, followed by interesting questions about that particular game, with the development of a mathematical concept immediately after to address those questions. Students have appreciated this approach as it helps them see that being quantitatively literate in today’s world can help them understand and answer a wide variety of interesting questions. (Received September 09, 2014)