

IT'S ONLY A GAME: RELIABILITY THEORY A BETTER WAY TO EXPLAIN DECISION MAKING IN BUSINESS SIMULATION GAMES

Christopher M. Scherpereel
Northern Arizona University,
Chris.Scherpereel@nau.edu

ABSTRACT

Educational simulation games are designed to create an environment that is characterized by complexity and uncertainty. As simulation game developers, we expect that the players of our games will use rational analysis as the preferred decision process. Anecdotal evidence seems to contradict this expectation. When faced with the complex decision environment of a simulation most players seem to forget the analytical tools they acquired during their education and resort instead to adhoc intuition or heuristic processes. It has been suggested that when college students play simulation games they use intuition or heuristics rather than analytical tools because they never really learned how to use such tools. We would like to propose an alternative explanation. In response to the uncertain and complex environment of a simulation game, student teams seek a straightforward yet reliable decision-making model. Because they are not confident they can correctly apply the analytical tools to make the simulation decisions, they rationally choose to ignore the methods they have learned and employ simplifying rules and heuristics. A behavioral theory developed in the economic literature called reliability theory suggests that this decision making response should not be surprising. Applying reliability theory to business simulation decision making explains much of the behavior we see in student simulation team decision making behavior and sheds light on the frustration that we often feel as users of educational simulation games. If reliability theory accurately describes decision making in simulation games, it suggests a number of interesting questions we must ask ourselves. Are simulation games just too complex for students to confidently apply what they have learned? When faced with significant uncertainty and complexity, is intuition more valuable than analysis?