

Beat the Quake: Designing an Earthquake Themed Puzzle Room

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California State University, Northridge (CSUN) is one of the nation's largest single-campus universities. The University is located in a dense, urban setting with a history of exposure to large earthquakes including the 1994 Northridge earthquake and the 1971 Sylmar earthquake. With a majority of the current student population born after 1994, the institutional memory of historic resilience to these earthquakes is beginning to fade. In order to better communicate earthquake risk and recommended preparedness measures to current students, CSUN staff and faculty collaborated to create a novel, interactive, educational method. Beat the Quake is an earthquake themed puzzle room, set in February 1994 just weeks after the magnitude 6.7 Northridge earthquake damaged the university. The puzzle room challenges groups of 4-5 students to utilize teamwork to solve a series of earthquake related puzzles before the earthquake hits, simulated by the earthquake early warning sound. Puzzles include identifying the San Andreas fault on a map, identifying the magnitude of the 1994 Northridge Earthquake, utilizing earthquake mitigation techniques to physically secure items in the room, collecting preparedness items to build a kit, and practicing "drop, cover, hold on" when the earthquake early warning sounds. Beat the Quake debuted in April 2016 and garnered 113 participants. A post-event survey revealed that participants retained a high level of earthquake knowledge, with over 98% correctly identifying the appropriate action to take during an earthquake despite the fact that for most this was the first disaster preparedness activity that they had participated in. 100% of those surveyed indicated that they would like to see the Beat the Quake event held at CSUN on at least an annual basis.