



Natural Hazard Demonstrations for Teaching

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This paper presents several demonstrations that have been developed for use in front of large university classes and smaller 'break-out groups' in the area of natural hazards (e.g. landslides, earthquakes, volcanoes, wildfires, tsunamis, mass movements, asteroid impacts, etc.), the main research area of the author. There are many methods of teaching, but as university lecturers, particularly for large class sizes, we find ourselves too often presenting material to students by direct speaking, or some combination of blackboard/whiteboard/slide projector/digital projector. There are certainly a number of techniques to more actively involve students, so that teaching is not just 'receiving of information', including breaking up students into small group discussions, encouraging students to actively participate in class through comments and questions, and/or some combination of hands-on activities and demonstrations. It is this latter which is concentrated on here. As a teaching tool, the students themselves became much more excited about what they are learning if use is made of 5–10 minute demonstrations, even if only peripherally related to the subject at hand. The resultant discussion with questions and comments by students keeps both the students and the lecturer (in this case the author) motivated and intrigued about the subjects being discussed. Days, weeks, and months later, the students remember these 'demonstrations', but to set these up takes time, effort, and resources of equipment, although not necessarily a large amount of the latter. This paper discusses several natural hazards demonstrations, most inexpensive, that have been used in front of large university classes and smaller 'break-out groups', and which can also be adapted for secondary-school students. In addition, summary information will be provided with links to government groups, books, and organizations that detail the design and use of assorted demonstrations in a wide spectrum of natural hazards.