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Teaching risk in school.

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Summary: Although risk is an important topic for society it is seldom addressed when teaching statistics and probability. In this paper, we refer to this discrepancy identifying three obstacles for teaching risk in school regarding the mathematical and the situational aspect of risk. Based on two educational constructs, i.e., probability literacy and modelling, we discuss existing approaches for teaching risk in school and propose two strategies for promoting risk as a valuable issue for students based again on the distinction of the mathematical and situational aspect of risk.

Classification: K50 K70 K90 M10 D30

Keywords: risk; stochastics; statistics; probability theory; teaching; didactics of mathematics; problem posing; obstacles; risk literacy; probability literacy; real-life mathematics; conditional probability; mathematical model building; computer-based learning environment; Bayes formula; tree diagrams
http://www.math.unt.edu/tmme/vol12no1thru3/15_Eichler_and_Vogel.pdf