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An alternative teaching method of conditional probabilities and Bayes' rule: an application of the truth table.

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Summary: This paper presents a comparison of three approaches to the teaching of probability to demonstrate how the truth table of elementary mathematical logic can be used to teach the calculations of conditional probabilities. Students are typically introduced to the topic of conditional probabilities – especially the ones that involve Bayes' rule – with the help of such traditional approaches as formula use or conversion to natural frequencies. The truth table approach is an alternative method for explaining the concept and calculation procedure of conditional probability and Bayes' rule.

Classification: K60 K50

Keywords: teaching statistics; conditional probability; Bayes' rule; truth table

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