Study on the Intuitive Understanding of Probability among Primary School Students: A Case Study from Serbia and the Czech Republic

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This study emphasizes the importance of teaching probability in primary school, with a focus on the need to integrate intuitive reasoning about randomness with structured school learning. Using the examples of Serbia and the Czech Republic, where primary school students do not learn about probability as a part of the compulsory mathematics curriculum, the study tested intuitive understandings of basic probability concepts. The test administered to students included problems of varying complexity and difficulty related to tossing one or more coins or dice. Analyzing the responses of 600 students aged 12-15 from both countries, the study aimed to uncover both well-founded understandings of randomness among students and prevalent misconceptions about probability. Considering the research results, educational institutions can reassess and update their curricula to better support students' development in this important mathematical concept. Integrating basic elements of probability theory into the primary school mathematics curriculum could significantly enhance students' understanding of random phenomena and probability laws. Such an approach would not only improve students' competency in mathematics but also foster the development of critical thinking and problem-solving skills, and the application of mathematics in real-life situations.

Key words: *students' intuition, probability, teaching and learning programs, students' misconceptions*

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