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Challenges faced by a mathematically strong student intransferring his success in mathematics to statistics: a case study.

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Summary: This study qualitatively investigates the nature of the challenges that a student who is highly successful in mathematics faces in learning college-level elementary statistics. The study draws on the constructs of eagerness, flexibility and willingness to characterize the necessary disposition for critical thinking that is essential in learning statistics. The case study is based on data collected through a survey assessment and a follow-up interview with a mathematics major enrolled in an elementary college statistics course at the time of the study. The qualitative analysis relies on the student's verbal descriptions of the challenges he was experiencing in the course. The findings suggest that while his strong inclination towards inquisitive learning and strong understanding of mathematical concepts supported this student's mathematics learning, the same characteristics might have been causing him difficulties in learning college-level elementary statistics.

Classification: K45 K75 K85

Keywords: statistics education; elementary statistics; subject specificity; critical thinking; critical thinking disposition