Using Computer Assisted Qualitative Software (CAQDAS) to Evaluate a Novel Teaching Method for Introductory Statistics

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Purpose
The purpose of this study was to use Computer Assisted Qualitative Data Analysis software (CAQDAS) to evaluate and integrate two sets of data collected from students enrolled in introductory statistics.

The Article
This article begins by discussing the large amount of quantitative data that has been collected on teaching methods, usually in the form of questionnaires and various attitude and anxiety inventories. In contrast, little qualitative data has been collected as the coding process and the evaluation of student responses is arduous. The goal of this study was to combine the instructional design elements of humor, writing, and real data in a single learning approach by creating short stories to teach introductory statistics. Both quantitative and qualitative were collected so as to measure students’ thoughts about their learning experience with the use of this teaching method. In addition, the authors were interested in evaluating the potential use of Computer Assisted Qualitative Data Analysis software (CAQDAS) to attain their teaching goal. The authors employed a mixed method approach and thus selected MAXQDA as their data management and analysis tool to handle the textual and numeric data. Results showed that two content themes were visible through the tools available in the CAQDAS program. The authors report that CAQDAS was time efficient and provided a variety of tools to evaluate data. Additionally, the learning curve is minimal as CAQDAS programs work with projects just like Word and Excel do. Another advantage is that several people have the ability to code a single document which allows ease of working with one another. Overall, CAQDAS is a viable option for teachers and educational researchers.

What this Means for the Field
As there is an increased demand for evidence-based practices it is necessary for teachers and researchers to attend to instructional research. The use of Computer Assisted Analysis software assists in making the research process more accurate and time efficient. Teachers and researchers can use Computer Assisted Analysis software to enhance the quality of educational research and, thus, lend to evidence-based practices in the field.

Citation

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