

Review of: "Assessing students' attitudes and perceptions towards statistical literacy in a university system in a developing African country"

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The authors of *Assessing students' attitudes and perceptions toward statistical literacy in a university system in a developing African country*, Beaven Utete, Maria Tsvere, Jacob C. Mapara et al., have presented a well-thought-out and timely probe of a timely and important problem. Even in first-world countries, there is a greater than ever before need for students to master some understanding of statistics for their fields, and no doubt an even greater challenge in developing countries, such as Zimbabwe.

The authors have set up a tight research design of both quantitative aspects, which provides a strong basis to establish the problems of students needing to learn statistics, and qualitative aspects, which explore the parameters of the problems and what could be done to address them. They received results from 184 completed forms of the Survey of Attitudes towards Statistics (SATS) instrument (Schau 2003; Vanhoof 2010) from students in several fields of study. They found that student effort doesn't always equate to better performance, which is unfortunately too often assumed by instructors.

Another unfortunate finding was that students didn't necessarily think that statistics will apply to them in their future professions. This indicates a strong need for better communication from instructors at the start of courses.

The authors probe and discuss the students' beliefs and opinions about their statistical coursework. One top consideration is the level that a student enters their studies at the university. Not all have adequate backgrounds, and some are stats illiterate or have "statsphobia". Since all students are required to take at least one course in statistics, based on topic threads during the qualitative research discussions, authors ascertained the need for the teaching institutions to develop better assessment and didactic methods to improve instruction. This would include more student and instructor contact time with smaller class sizes, identification of students who require more support, and more and better assessments beyond only classroom tests, such as outside assignments and real-world activities.

One strength of this article, beyond the solid research design, implementation of both quantitative and qualitative aspects, exploration and presentation of data, and clear writing, was that the authors explored and suggested some practical solutions to ameliorate the problems that they identified. This is too often lacking. The only suggestion I would add would be to promote statistics education in secondary school, before university, so that students would not be so much in danger of being stats illiterate or suffering from statsphobia.

