

## CALL FOR PAPERS: QUALITATIVE APPROACHES IN STATISTICS EDUCATION RESEARCH

The *Statistics Education Research Journal (SERJ)*, a journal of the International Association for Statistical Education (IASE), is planning a special issue for November 2010, focused on research on the topic of *Qualitative Approaches in Statistics Education Research*. **Submission deadlines: Letters of intent by Sept. 14, 2009; Full papers by Nov. 2, 2009.** The Guest Editors for this issue will be Sue Gordon (University of Sydney, Australia, <s.gordon@usyd.edu.au>) and Anna Reid (Macquarie University, Australia, <anna.reid@mq.edu.au>).

### 1. RESEARCHING STATISTICS EDUCATION: QUANTITATIVE OR QUALITATIVE

Education is a social activity with strong elements of unpredictability. Students enter with a variety of different educational and life experiences, and many of these aspects are difficult to analyse using statistical methods – even when the students are studying statistics. An obvious way forward is to use research approaches that focus on the social and personal aspects of learning. Qualitative research approaches can capture and explain the more experiential dimensions of learning, illuminate pedagogical issues, and complement and enrich results that may be obtained from quantitative studies. Much mainstream research in education utilises qualitative methods to examine learning situations, often through analysing linguistic or socio-cultural elements. As with quantitative research, qualitative methods must demonstrate rigour and validity according to recognised criteria appropriate to these methods.

Although previous editions of *SERJ* contain examples of qualitative approaches to research, these approaches seem less utilised compared with other areas of pedagogical research. For statisticians, the quantitative approach to research problems seems to be the natural one, even when examining aspects of statistics pedagogy. However, different research questions are often addressed – and sometimes answered – by different research approaches, and there are cases where a qualitative approach, or a ‘mixed methods’ approach, is more fruitful than a quantitative one. For some statisticians, qualitative approaches to research can seem alien, or not in their area of (statistical) expertise, and hence they may try to avoid them. Within statistics, rigour is usually represented by the use of statistical techniques; in some cases, this approach is even supported by law in the form of government policies for accountability of research funding. Nevertheless, there are many situations where a statistical approach contains qualitative elements, for instance, the wording or selection of questions for a survey, the decision of what to measure and how to measure it, and the very notion of classification.

In his editorial in volume 6, number 2 of *SERJ*, Iddo Gal referred to “dynamic data,” which he defined as the information that is collected when research is carried out in situations where students are using dynamic software packages or interactive applets (though the term has a more common use in referring to situations where information is used to update a data set). Such data consist of information about what students actually did, what they said during the process, and how they interpreted the results. In other disciplines, this is sometimes referred to as “observational ethnography” and can embrace issues of ethnic diversity, life experience, narrative as inquiry and theory development.

This special issue will focus on qualitative approaches to research in statistics education with the aim of illuminating practice or theory, highlighting pedagogical issues and critically examining and reflecting on diverse perspectives in the teaching and learning of statistics at all levels.

## 2. POSSIBLE TOPICS

Examples of topics that would be relevant for this special issue on *Qualitative Approaches in Statistics Education Research* include, but are not limited to:

- a. Papers reporting the results of empirical studies in statistics education carried out using particular qualitative methodologies, or with ‘mixed methods’ approaches.
- b. Papers reporting on dynamic learning situations where students learn through using statistical packages, for example, in research in statistics education.
- c. Articles that critically appraise the use of qualitative methods of any type in statistics education research.
- d. Reviews of qualitative research in statistics education.

## 3. SUBMISSION GUIDELINES

Authors are advised to aim for papers in the range of 4000-6000 words of body text (not counting abstract, tables and graphs, references, appendices). Manuscripts for the special issue will be limited to a *maximum* of 7500 words of body text, but shorter, concise papers are encouraged. All manuscripts will be refereed following *SERJ*'s regular double-blind peer-review process. Manuscripts should be submitted in accordance with *SERJ*'s standard Author Guidelines and using the Template file found on the *Journal*'s website: [www.stat.auckland.ac.nz/serj](http://www.stat.auckland.ac.nz/serj).

## 4. DEADLINES AND CONTACT INFORMATION

Interested authors should send a *letter of intent* by *Sept. 14, 2009*, but preferably earlier, with a 150-250 word abstract describing key aspects of the research. This letter should be sent by e-mail to *SERJ* co-editor Peter Petocz: <Peter.Petocz@mq.edu.au>, and authors can expect to get a response within two weeks. Authors wishing to send informal queries regarding the suitability of a planned paper can also contact Peter.

*Full* manuscripts must be submitted by *Nov. 2, 2009* at the latest to Peter Petocz at the address above, in accordance with the submission guidelines listed earlier.

Decisions about the suitability of proposed papers and the allocation of accepted papers to the special issue or to a regular *SERJ* issue will be made jointly by the *SERJ* Editors and Guest Editors.