

Volume 1, Number 2  
April 15, 1988

Greetings to all of you who have sent in membership forms from my October newsletter or from the back cover of Teaching Statistics. Although my intentions were to produce this newsletter in January, as you can see it is now April. But, this allowed for inclusion of several responses I recently received. This edition is to acknowledge your membership, to list the current members and some of the information about them, to inform you of items of interest, and to solicit more information from you for current projects.

#### I. MEMBERSHIP

A number of individuals have initiated or renewed membership in the study group. Their names, addresses, research interests, and whether or not they plan to attend ICME, are on the attached pages. Most of you supported the current aims of the study group and also felt there should be a chairperson. If anyone is willing to serve in this position, please let me know. Or if you would you like to suggest someone, send their name to me. I will include a ballot in a future newsletter if I receive nominations.

#### II. ITEMS OF INFORMATION

I do not want to repeat information listed elsewhere, so I will report about myself and some of my projects at this time. I hope some of you will send me similiar statements summarizing current activities you are involved in or know about.

I have just returned from attending the Annual Conference of the National Council of Teachers of Mathematics. There were several sessions about teaching probability and statistics at the precollege level, particularly involving two current U.S. projects: Quantitative Literacy Project (QL) and the University of Chicago School of Mathematics Project (UCSMP).

- A. There was one session that dealt with the learning of probability and statistics concepts. This was a symposium chaired by Dr. Clifford Konold at the University of Massachusetts, a member of this group. This session included papers about the important ideas and skills students should have at the end of their precollege instruction (by Andrew Ahlgren), a summary of some of the misconceptions students have and why probability is a difficult subject to teach (by Cliff), and a discussion of obstacles to effective teaching of probability and statistics at the precollege level (I wrote this one). Please let me know if you would like copies of these papers.
- B. I am currently involved in two research projects. One is based on an interactive computer program called "Coin Toss," which runs on the Macintosh, written by Bob delMas. We are expanding the program and investigating how it confronts and, hopefully, changes students' conceptions of random events. The other project is in conjunction with Laura Koch, Bob delMas, and Bill Fox (an experimental psychologist here) on the relationships between rational number skills, proportional reasoning, and probabilistic reasoning. As part of the project, we assessed students' confidence in their answers. We are contrasting confidence in incorrect and

correct responses and how these change over the course of instruction in three different types of mathematics classes. I hope to present some preliminary results from one or both of these projects at a conference next year. The project I most recently finished was serving as one of the evaluators of the Quantitative Literacy Project. Andrew Ahlgren and I conducted surveys of participating teachers and their students. Finally, the most recent issue of the Journal of Research in Mathematics Education contains an article written by Andrew and myself which reviews the literature related to how students learn stochastics. If anyone would like a copy, please let me know.

- C. The November 1987 edition of American Statistician contains a massive bibliography of literature related to statistics instruction. Many of you are cited in it. It is a nice reference to have.
- D. A new magazine has been published by Springer-Verlag titled Chance: New Directions for Statistics and Computing. I received the first copy, which has one article on statistical education.
- E. Would you be interested in having me summarize relevant news from publications of the American Statistical Association, National Council of Teachers of Mathematics, American Educational Research Association, and American Psychological Association? Let me know.

### III. REQUESTS FROM YOU

- A. If you have developed or used an instrument to assess understanding of basic concepts in probability and statistics as part of a research project or in evaluating instruction, please send a copy to me for my "Catalogue of Assessment Instruments" project. I will not release your test to anyone for their use but will include an entry in my catalogue with information about the measure and how to obtain a copy and permission to use it. This is just to find out what instruments exist and what they measure. Please describe the age level of students who were tested with the instruments.
- B. If you are currently involved in research or are developing relevant instructional materials or software, please send me a brief description of your work to include in this newsletter.
- C. I will not be attending ICME and am asking for volunteers to convene members of the study group. Please let me know if you are willing to do this.

As soon as I compile the current list of members' publications, I will send it on, hopefully with the next edition of this newsletter. Thank you for your responses and feedback so far regarding this study group. I welcome any comments, feedback, and suggestions that you have to offer.

Joan Garfield, Secretary  
106 Nicholson Hall  
216 Pillsbury Drive, S.E.  
University of Minnesota  
Minneapolis, MN 55455  
U.S.A.