EDITORIAL

The summer months usually see a heightening of activities in the educational community in terms of meetings, conferences, and special projects. Please send your reports on such activities to the editor for publication in the October issue of the newsletter. The report could be a simple statement about the occurrence of the meeting or a paragraph or two containing more information. Longer reports are also welcome and may be included in the October issue or a later one. Please include news of recent publications pertinent to statistical education, as well as information on the availability of new materials, aids, and announcements of forthcoming activities.

EDUCATION COMMITTEE

ISI STATISTICAL EDUCATION VIDEO PROJECTS

The following report was contributed by Project Director, Dr. Kenneth B. Bryson, who is also Assistant to the Director of the ISI Permanent Office.

The ISI Committee on Statistical Education is undertaking the production of an ISI Statistical Education Video Series. The aim of this project is to increase the effectiveness of national and regional statistical education and training programs in developing countries.

Phase I of the project is a feasibility study. Phase two of the project consists of three activities:

1) Preparing an inventory of existing video-cassette courses in statistics.
2) Testing and evaluating a selected course at two education and training centres in Africa.
3) Writing a feasibility report with recommendations for the use of video-cassette teaching aids to improve teaching effectiveness in developing countries.

Funding for Phase I has been obtained from the International Development Research Centre (IDRC), Ottawa. A panel of experts was formed and had their first meeting in Voorburg on 16 March. They selected the video course to be used in the feasibility study. It will be tested during the Summer of 1989 at the Eastern African Statistical Training Centre (EASTC) in Dar es Salaam, Tanzania, and at one other site in Western Africa. Based on these tests a preliminary version of the feasibility report will be prepared for presentation at the ISI Session in Paris.

Some information for the inventory of video-cassette courses has been obtained from existing inventories and from responses to a questionnaire sent to university statistics departments in the United Nations Statistical Office. The ISI and the UN are cooperating in obtaining information from all national statistical offices on their production and use of statistical video materials.

Cooperation between the UN and the ISI is crucial to the success of the statistical education video project. At the 25th Session of the UN Statistical Commission in February 1989 the ISI representative made a verbal presentation on the video project and a written submission on this and other ISI activities related to technical cooperation. The video project received very strong support from the Statistical Commission. Other representatives spoke in favor of its objectives in promoting the statistical development of developing countries. The President of the ISI and the Director of the UN Statistical Office emphasized that it is a "joint venture" of these two organizations.

Quoting from the written statement of the ISI to the Statistical Commission:

"The cooperation of the UN Statistical Office with the ISI video project will help to:

- Identify topics of greatest value in training for statistical development in developing countries
- Conform the content of the course to appropriate statistical standards and international statistical guidelines
- Obtain the support of donors to pay the cost of production and distribution."

Already some negotiations are under way to obtain support from a UN source for the production of the pilot course in the ISI Statistical Education Video Series. More information about this, Phase II of the video project, will be given in a later issue of ISN.

Support by the members of the ISI and its Sections is equally important to the success of the ISI video project. If you have ideas for topics or video courses and sources of funding, and especially if you are willing to serve on a steering committee to assist in the implementation of your ideas, write to:

Professor David Vere-Jones
Chairman, Committee on Statistical Education
Department of Mathematics
Victoria University of Wellington
Private Bag, Wellington, New Zealand

Important message from the ISI Task Force for International Conferences on the Teaching of Statistics

The first international conference on teaching statistics, ICOTS 1, was held in Sheffield, UK, 1982, then followed ICOTS 2 in Victoria, Canada, 1986, and now we are looking forward to ICOTS 3 in Dunedin, New Zealand, 19-24 August 1990. Then the question arises: WHERE WILL ICOTS 4 TAKE PLACE IN 1994?

The ISI Task Force for International Conferences on the Teaching of Statistics is responsible for exploring possible sites for ICOTS 4 and to recommend to the ISI Education Committee the site of the next conference so that at each such conference the place for the next conference can be announced. The task force has now started its work to look for suitable sites for ICOTS 4 and will discuss this issue at the next task force meeting that will be held in connection to the ISI session in Paris, 21-28 August 1990.

If your country or your university is interested in hosting ICOTS 4 in 1994, please contact me or some member of the task force. Then you will get a questionnaire to answer about the facilities you have to host ICOTS. It is very important that the task force has as much information as possible available at its Paris meeting. So, please, do not hesitate to contact me, some member of the task force, or your National Correspondent about this matter. This information has also been sent to your National Correspondent.

Kerstin Vanman
Chairperson of the ISI Task Force for International Conferences on the Teaching of Statistics
Dept of Mathematics, Lulea University
S-951 87 LULEA, SWEDEN

The other members of the task force are:

James Adiche
Dept of Statistics
University of Nigeria
Nsukka, NIGERIA

Jim Maravelas
600 Mountain Avenue
Murray Hill, NJ 07974-2070

Dr. Luis C. Mendoza
Lisbon Superior Technical
Av. Rovisco Pais
1069 Lisbon Codex, PORTUGAL
Part I of this article, which appeared in the previous issue, sketched developments in nursing and nursing education that are of interest to the teaching of statistics to nurses. We also described the quite commonly used "cook book approach" to teaching statistics, in nursing and other disciplines alike. In this second part, we offer the alternative of grounding statistical education in nursing on the premise of generating intelligent users of statistics.

THE INTELLIGENT USER

It is not that the cook book approach is altogether invalid. On the contrary, its streamlining of decision-making and operations can lend structure and efficiency to statistical analysis. If the cook book approach were integrated into analyses in order to provide structure and efficiency, there would be no problem. Yet it would not be called the cookbook approach anymore, because the goal is no longer to produce an output in the least cumbersome and risky manner.

Avoiding the cook book approach is only possible, however, if the data analyst knows what he or she is doing. This implies a repertoire of specific expertise. Intelligent users of statistics are able to:

(1) recognize at all times that they are users of STATISTICS, and may need the support of experts with formal statistical credentials;
(2) translate issues and questions formulated at the conceptual level "down" to the level of representation, measurement, and quantification;
(3) not only identify the variables of interest, the applicable data sets, and the appropriate statistical models; but also justify the choices, weight the alternative choices, and defend the chosen model over the other ones;
(4) understand and consider the implicit and explicit assumptions underlying statistical tests;
(5) develop and implement data entry, management, and analysis strategies that will optimize the informativeness of the data and the research questions;
(6) understand most, if not all, of the output associated with particular statistical models, and be able to interpret these within the context of the research questions and variables of interest;
(7) assess the completeness of the information yielded by data analysis, and if necessary, design and implement additional analysis strategies;
(8) translate data and results back "up" to the conceptual level, assess the extent to which the conceptual issues and questions have been addressed, and, if necessary, translate back "down" for additional quantitative work;
(9) integrate conceptual and quantitative information such that it can be communicated comprehensively and disseminated effectively;
(10) know when to quit and call in help.

A final note on statistical consultation. Being a user means that one is effective and appropriate in applying existing technologies within one's realm of expertise. However, it is the complexities of patient care that generate the need for research projects and the demand for statistical technology. Not the statistical expertise of the nurse doing the study. No matter how intelligent a user these nurses are and how well-trained they are as applied statisticians, additional statistical expertise will often be required. There is no shame in working with a statistical consultant, only scientific honor and integrity (for helpful strategies, see Boon & Zahn, 1982; Brogan, 1989; Ferkerelich, 1989; Jones & Jones, 1989). As Samuel Johnson once said, "knowledge is of two kinds; we know a subject ourselves, or we know where we can find information about it."

REFERENCES


Ivo L. Abraham School of Nursing Department of Behavioral Medicine & Psychiatry University of Virginia Charlottesville, VA 22903, USA

C. Valerie Rice School of Nursing Case Western Reserve University Department of Behavioral Medicine & Psychiatry School of Medicine University of Virginia Cleveland, OH 44106, USA