Statistical Training by the South Pacific Commission

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1. History and background

The South Pacific Commission (SPC) has been providing statistical training to its 22 island member countries for 18 years. In 1972 the first training course (on Trade Statistics) was held in Fiji. A total of 18 such "Specialised" training courses have been conducted throughout the Pacific by the SPC. Over 300 people have participated on these courses, with participants coming from 20 of the 22 member countries of the SPC. The range of topics covered by these courses includes trade statistics, national accounts, agricultural statistics, employment statistics, household surveys, data analysis and interpretation, forecasting, and statistical microcomputing. These are rather specific topics and they provide necessary advanced training in both the theoretical and practical aspects of these important statistical fields. However, they do not provide advanced training in mathematical statistics, which is adequately provided by universities in Australia, New Zealand, the USA, Asia, and by other training institutions such as the UN Statistical Institute for Asia and the Pacific in Tokyo. In any case the need for such advanced training is fairly limited, especially in the smaller countries of the Pacific.

On the other hand, it quickly became apparent that there was a considerable demand (and an even greater need) for more general, basic statistical training. In recognition of this need, a basic Statistical Operations and Procedures (SOAP) course was introduced in 1977. Forty-two basic SOAP courses have been conducted since 1977, training over 800 participants. These courses have been held in 16 of the 22 member countries of the SPC.

The course is held "in-country" (i.e. only people from the country in which the course is being held participate), and runs for six weeks in the mornings only. This allows participants to return to their workplace in the afternoons so that they do not get seriously behind with their official duties - which is particularly important in the smaller island countries where there is often no-one else to carry out the participant's duties whilst they are on training. It also means that the course can be run by one person, whereas two people would be needed if the course was run on a full-time basis.

The course is based on a set of lecture notes which currently comprise the following modules.

Module 1 Principles and Methods of Statistics

1. Principles and methods of statistics
2. Statistics and their uses
3. Official statistics and the role of the National Statistics Office
4. Statistical standards

Module 2 Data Collection

1. Determining statistical requirements
2. Designing a statistical collection
3. Questionnaire design
4. Sampling
5. Data collection from administrative records
6. Data collection using a self completed questionnaire, including mail surveys
7. Data collection by field work

Module 3 Data Processing and Statistical Presentation

1. Data processing principles and operations
2. Mechanical aids for data processing-computers
3. Basic computation techniques
4. Tabular presentation
5. Statistical diagrams
6. Textual presentation and publication

Exercises and home assignments are used to monitor progress and reinforce the lecture material. Also, a course project is an integral and essential component of the course.

The underlying aim of the basic SOAP course is to provide participants with a basic understanding of why statistics are important and an overview of how to collect and use statistics. As the various topics suggest, the course is non-technical and only a very basic level of arithmetic is required.

A major effort is made to include training in basic numeracy as an essential (if unstated) part of the course. This basic numeracy component of the course is introduced in a number of ways. In countries where a local newspaper is published every day, it is usually possible to find one or more articles each day involving tables, graphs and other basic statistical materials which could then be discussed on the course. Alternatively, some data can be taken from the country's statistical publications and discussed by the participants. This method has the added advantage of making participants (many of whom do not work in the statistics office) more aware of what information is available about their country, and how it can be used in their place of work.

Considerable emphasis is placed on developing basic skills. Since an understanding of percentages is vital to so much statistical work, considerable time is often spent on short exercises involving percentages. Other basic concepts which are important to statistical work and are often found to be deficient are the use of simple pocket