METHODS BRIEFING 13

Longitudinal Data Analysis in the Social Sciences

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The Programme aims to develop qualitative and quantitative methods within the context of substantive research. It also aims to encourage effective dissemination of good practice.

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Introduction

Many interesting substantive research questions in the social sciences are about social change and, equally importantly, social stability. Such questions cannot be answered with static descriptions, such as those provided by cross-sectional studies, and longitudinal data are essential. Longitudinal data are not a panacea but will tend to be an improvement on the majority of cross-sectional designs due to the incorporation of a temporal dimension.

Aims and Objectives:

- To develop a programme of training activities (workshop / seminars) that expose substantive social science researchers to new and existing longitudinal data sources.

- To design, develop and build a set of on-line training resources based on the workshop / seminars that support social science research training in the area of longitudinal data analysis.

- To maintain and update the on-line training resources.

The central aim of the programme of training activities was to expose substantive social science researchers to new and existing longitudinal data resources and to improve skills and knowledge in longitudinal data analysis. This has been achieved through an integrated programme of training activities in the analysis of longitudinal data in the social sciences, which includes a set of computer based on-line training resources.

The workshop /seminars were designed to introduce researchers who have some experience of quantitative methods to the benefits and problems associated with methods of longitudinal analysis. Longitudinal methods are complex and need direct 'hands-on' experience. Our focus was not on training for researchers with no quantitative skills; rather, we aimed to provide training for the large group of quantitative researchers who have not yet undertaken longitudinal research. The workshops encouraged and supported the dissemination of good practice through the enhancement of training programmes and training materials for the research community and also enhanced methodological knowledge in the area of quantitative methods.

On-Line Materials:
www.longitudinal.stir.ac.uk
These materials are available to anyone who completes the required registration.
The site uses a 'Virtual Learning Environment' software, 'WebCT', supported by Stirling University. WebCT provides a specialist e-learning environment for higher education. It also allows the team to restrict access to, and monitor the usage of, the project materials. This is necessary because, whilst many of the resources for the project are available openly from the front-end webpage, there are also some resources which for legal or pragmatic reasons, we can only release to registered people. However, we hope to move to an Athens authenticated access system in the near future.

To enter this part of the site you need to email team members:
vernon.gayle@stirling.ac.uk or
paul.lambert@stirling.ac.uk to request a user name and password. Then you can log onto Stirling University's WebCT system. A condition of access of this site is that the user will keep their WebCT login details private. The WebCT materials can then be navigated through any web browser, in a similar fashion to other types of web pages. Navigation is most reliable using the 'breadcrumb' links at the top of the WebCT page, of the form 'Homepage > Introduction', etc.

On entering the WebCT site, users will find a variety of resources under the links from the 'homepage'. Most resources are under the 'materials' link and include introductory and intermediate training materials and exercises on a range of topics. The 'data' link provides information on a selection of longitudinal social science datasets. This resource includes some example data files and may include files specific to individual users. However other guides to data files are available from the open access webpages of the project. Under the 'software' link users can find a selection of training resources and associated information on statistical data analysis software appropriate for longitudinal data management and data analysis. The majority of resources concern the general purpose packages SPSS and STATA. The 'discussions' and 'email' links both offer ways for users to contact the team, and other registered users (such as fellow workshop participants). We would like to encourage users to consider making use of these contact opportunities, for instance to post research queries and problems.

The bulk of the on-line training materials consist of illustrative command files in SPSS and STATA. These are text files which illustrate a range of data management and data analysis exercises in terms of example data files which users may access either direct from the WebCT site itself, or via the UK Data Archive (http://www.data-archive.ac.uk/). Such command files are also known as 'syntax' files in SPSS, and 'do' files in STATA.

A further document is available from the LDA WebCT site (see 'Home > Materials > LDA lab exercises guidance sheet') describing the operation of the exercises associated with these files in more detail.

At the end of 2005 there were over 100 registered users, mainly researchers and academic staff. There are a number of research students and researchers from the non-academic community and a few overseas researchers.

Further details are available from:
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