Teaching for Learning Network

Inventory Generation from Interviews

Rationale

A common pattern in small scale research projects is the administration of a survey followed by case studies or interviews involving a small number of participants. While the latter may be very illuminating, they are often used to generate post-hoc rationalisations of patterns in the survey data, or may actually generate further hypotheses or avenues for exploration of which the original survey design took no account. An alternative (or additional) role for interviews is the generation of more robust and conceptually grounded inventories of items for use in surveys.

Procedure

Semi-structured or 'hierarchically focussed' interviews are used to illuminate a particular area prior to the generation of inventories of items which in turn may be used in more structured research instruments such as questionnaires, structured interviews, attitude tests or repertory grids. The purpose of the interviews is to generate as many possible useful items as possible, so characteristically the interviewer will prompt participants for multiple examples and instances, and the interview structure needs to be sufficiently flexible to allow unexpected areas and issues to be explored. Prompts such as 'how do you see ...?' and 'what factors might contribute to ...?' are more useful in this respect than more directive questions. Careful selection of interview participants is necessary, using some kind of stratified or accretional sampling approach. A more radical but potentially very interesting approach would be to use some kind of 'delphi panel' rather than single interviews.

Data Collection and Analysis

Interviews are characteristically transcribed and analysed using a qualitative data analysis package such as Transana, Atlas or Nudist. Depending upon the degree of structure in the interview itself, a pre-existing coding frame may be used or, alternatively, codes may be built up through a process of *in vivo* coding. Broader statements of attitude. belief or principle or more specific operationalisations of these may be selected depending upon the nature of the questionnaire or survey instrument to be generated. Other approaches might be to generate inventories of factors which tend to support or constrain a particular activity or change process. In the case of the BioEngineering study, the inventory was for use in a 'self efficacy' survey so the items required were general and domain-specific statements of 'confidence' so it was the operationalisations rather than the principles or attitudes which were extracted in the coding process. The *in vivo* codes do need to be rewritten or reframed into a consistent style and structure for inclusion in the resulting inventory.

Impact, Engagement and Application

Questionnaires based on inventories designed in this way are more likely to address the domain-specific priorities of participants, whose early engagement in the research process may improve research relationships and participant confidence in research processes and findings, particularly in the context of commissioned or evaluation research. Underpinning principles and themes identified in the interview analysis may provide frameworks for meta-analysis or data reduction techniques such as confirmatory factor analysis once quantitative data has been collected using the inventories.