Sociology Shortcuts

M2. Positivist Methods

While different research methods can't simply be attributed to different research methodologies - the *"Interpretivists would never touch a questionnaire"* approach - some methods are *more-likely* to be used by positivist researchers because they reflect their beliefs about how and why it is possible to collect reliable and valid data. Here's a selection…

1. Longitudinal studies

A form of **comparative research** that involves tracking changes among a **representative sample** group over time. This type of study allows the researcher to analyse (using anything from *questionnaires* to *statistics*) the same group at different points in their life-course.

Strengths

Trends may be revealed that would otherwise remain obscured: Hills et al (2010) used data from the English Longitudinal Survey of Ageing to analyse later-life mortality rates and wealth and found strong correlation with high wealth and longer life expectancy.

Representative samples are easily and reliably generalised and point to possible causal relationships: Power et al.'s (2011) 10-year study examined the problems faced by 200 families raising children in highly disadvantaged neighbourhoods. They found a causal relationship between physical or environmental improvements to an area and the well-being of its families.

Reliability is usually high because a study can, in principle, be replicated.

Developmental changes within a group or cohort can be tracked over time

Data collection is contemporaneous, not retrospective - doesn't reply on people "remembering things".

In-depth data generated from very large and highly representative samples.

Weaknesses

Sample attrition rates (the number of people who withdraw from the original sample over time) may make the sample unrepresentative.

Such studies are only ever a snapshot of people's behaviour at any given moment. This may impact on their validity

This is open to dispute, however, since longitudinal studies frequently measure exactly what they claim to measure (validity).

Although reliability through replication is, in principle, possible it is actually rare for a long-term, large-scale, longitudinal study to be directly replicated.

Even small samples can be time-consuming and labour-intensive to construct and track over time (although computer modeling has made this much easier).

Control effects: if same sample is reinterviewed many times this may impact on their behaviour.

Massive amounts of data can be generated that may be difficult and time-consuming to analyse (although, again, computer technology may make this less relevant).
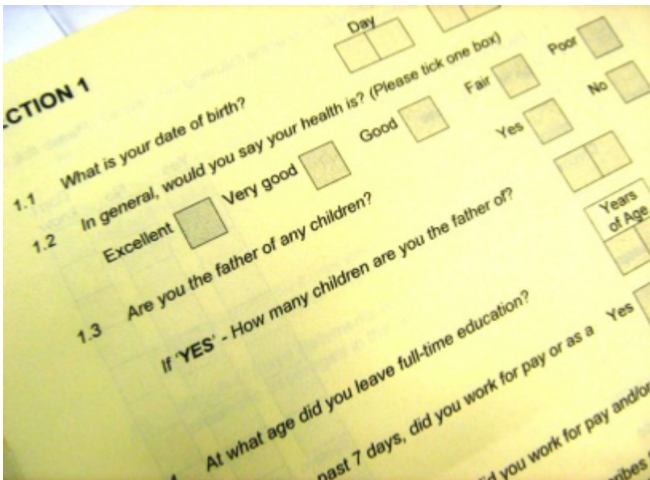
2. Questionnaires

Strengths

Ackroyd and Hughes (1983): questionnaires useful for collecting three types of data:

1. Factual: e.g. objective features of individual lives (such as occupation and income).
2. Attitudinal: measure people's beliefs.
3. Demonstrative: compare and correlate factual data to produce (causal) *explanations.*

Reliability: useful for easily and efficiently researching large groups (*social surveys*).

Ability to *pre-code* questions and responses makes analysis easier, especially because questions (and responses) can be standardised.

Everyone answering the same questions increases reliability. Where *closed questions* are used the interpretation of responses is also straightforward.

Postal questionnaires avoid both interview and interviewer effects, increasing research validity.

Validity also enhanced by respondent anonymity. E.g. McCarry et al's (2008) study of "same-sex" domestic violence. Where data is collected anonymously respondents have less incentive to withhold or overstate information.

Weaknesses

Control effect: data collected by putting respondents in an artificial social setting - answering a list of questions - potentially lowers validity.

Imposition effect: researcher imposes their view of the world on respondents by pre-judging both questions and range of answers. McCullough (1988) argues a *methodological limitation* is the fact "issues are only measured if they are known prior to the beginning of the survey".

Where response rates for postal questionnaires are low, this creates problems of representativeness and validity through an increased chance of an unrepresentative self-selected sample.

In addition, while anonymity may encourage honesty, if someone other than the intended respondent completes the questionnaire then research validity and representativeness will be affected.

Reliability: The researcher trusts questions mean the same thing to all respondents.

Complexity: This format makes it difficult to examine *complex* issues and opinions. Even where open-ended questions are used, the depth of answers tends to be more limited than with almost any other method. This may mean the researcher fails to collect potentially significant and informative data.

Unintentional bias (ambiguous, hypothetical or leading questions / answers) may impact data reliability and validity.

3. Structured Interviews

Strengths	Weaknesses

Structured interviews have the same format as postal questionnaires - a list of pre-coded questions answered in a predetermined order - but with two methodological advantages.

1. Representativeness: Structured interviews avoid unrepresentative research caused by low response rates or self-selected samples.

Response rates are invariably high (they should be 100%...) because the researcher rather than the respondent writes down the answers given to questions.

2. Reliability issues, such as misunderstood questions, can be resolved through discussion with respondents. If a respondent is unable or unwilling to provide an answer, the researcher will be aware of the reasons for this and may be able to resolve them.

Structured interviews can also have advantages in specific situations.

Iske et al's. (2005) examination of the relationship between social inequality, access to digital resources and the subsequent impact on educational disadvantage, used a form of structured interview ("surf interviews" - young people interviewed while they were surfing the internet) because it allowed them to conduct research on respondents who had difficulty "verbalizing personal experiences".

This technique overcame the limitations imposed by relatively inarticulate respondents.

By observing and framing questions in the context of everyday behaviour the researchers questioned respondents and gathered data about things like patterns of web use, search strategies and so forth, by respondents *showing* researchers how they did these things.

Unlike their postal equivalents, interview and interviewer effects are potential problems. If a method designed to reflect an *objective approach* to collecting data fails to meet this criterion we must question data reliability here.

Prestige bias is a form of interviewer effect involving things like *status or power differences* between interviewer and respondent. If respondents are asked about personal things - income, values, attitudes - or significant aspects of their self-concept, such as how they see themselves compared to others, this can lead to validity problems and a "mask effect":

Respondents "hide behind a mask" of answers designed to "not make themselves look bad" in the eyes of the researcher.

Similarly, a halo effect (a desire to obey the interviewer: Draper, 2006) may result in unintentionally dishonest answers and unreliable / invalid data.

Two further potential problems, as with postal questionnaires, involve prejudgments - the researcher has decided, in advance, what is significant in relation to the behaviour being studied - and biased questions. Both can impact on data reliability and validity.

4. Content Analysis

This research method has both quantitative and qualitative forms, with the former more-closely related to positivist approaches. What both varieties have in common is the study of *texts* - a general term referring to data. Quantitative content analysis is mainly concerned with categorising behaviour and its main tool is a content analysis grid - a chart used to systematically collect statistical data about people's behaviour.

Strengths

Themes and patterns to behaviour that may not be immediately apparent can be uncovered through relatively simple quantification.

Recurrent themes (such as women being associated with housework) in complex forms of social interaction can also be identified.

Complex conclusions can be drawn about people's behaviour on the basis of relatively simple and straightforward quantification.

The use of a *standardised framework* (the *grid*) means data can be checked and *replicated* thereby increasing data reliability.

Hogenraad (2003)

Developed a computer-based content analysis program to search text-based historical accounts of war to identify recurring themes that signify the lead up to conflicts.

Raises possibility of this method having predictive qualities; by identifying a pattern of past behaviour that always leads to war, it may be possible to predict the outbreak of future conflict on the basis of key themes appearing in various media.

Weaknesses

Content analysis frequently involves making *judgements* about the categorisation of behaviour - the researcher, for example, decides which categories *will* or *will not* be used for analysis - and this may affect data reliability.

Similarly, the researcher must also *judge* which forms of behaviour fit which categories: can all observed behaviour be put neatly into a particular category? Or does behaviour that cuts across different categories merit a category of its own? Thus, data can be difficult to *replicate*: different researchers, studying the same behaviour, may not categorise it in the same way.

It doesn't tell us very much about *how* audiences receive, understand, accept or ignore uncovered themes and patterns.

Concept Mapping

Page (2005) argues computer technology can be used to rapidly search texts (such as newspaper articles) for key words or phrases that indicate the use of similar ideas.

He was interested in understanding how the media portrayed global warming - as something naturally occurring, the result of climate variability or as created by human behaviour; by tracking how these concepts were used it was possible to create a concept map that demonstrated the ideological thinking of media professionals (whether "the media" described global warming as having "natural" or "social" causes) on a worldwide basis. This, in turn, told us a great deal about how people generally understood the causes of global warming in terms of the information they received from media sources.

5. Official Statistics

Statistics satisfy a range of criteria for positivist approaches, from **objectively** through **reliability** to the ability to make extensive, large-scale, **correlations** within and between a range of social phenomena - from class and gender to age and ethnicity.

Strengths

1. Practical: Data that would be *expensive*, *time-consuming* and *difficult* to collect are widely available through official government sources.

Marshall (1998): "statistical data are almost invariably nationally representative, because they are obtained from complete censuses or very large-scale national sample surveys".

2. Methodological:

Possible to track how population patterns and behaviours change over time (longitudinal studies) e.g. crime, education, inequality.

Inter-group comparisons, such as differences in class or gender inequalities, are made possible.

"Before-and-after" studies, for example, track the effect of social and legal changes on specific groups (the Sex Discrimination and Equal Pay Acts on gender inequalities)

Cross-cultural comparisons can also be made to highlight cultural differences between societies.

Official statistics also facilitate cohort studies - people born in the same year who are tracked throughout their lifetime e.g. Dias (2009). Data drawn from the UK National Child Development Study examined health inequality across a range of dimensions.

Official statistical data has a high level of comparative consistency; over time, data is collected in much the same way from the same sources using the same (or very similar) definitions ("*iteration*"). This consistency allows for exact replication and makes year-on-year comparisons between different social groups possible. *In principle*, this means there is a high level of reliability associated with this method.

Weaknesses

Methodological weaknesses centre around:

Changing definitions - an ever-present problem with secondary sources when a researcher doesn't have complete control over data collection.

Governments may change the definition of key concepts (such as crime, class and even gender - consider the development of *transgender* categories).

Where the researcher can't control definitions used by official sources, these definitions don't always conform to sociological definitions. Many official statistics, for example, define ethnicity in terms of "country of origin" (such as White British or Black African) whereas sociological definitions tend to be more culturally complex.

This points to a further problem - the use of proxy indicators; that is, indicators used to *represent* something like ethnicity (such as "country of origin") or class.

While some proxy indicators - such as occupation to indicate class - can be both reliable and broadly valid, others can create problems. When looking at class inequalities in educational achievement, for example, the main proxy indicator tends to be eligibility for free school meals - but this is, at best, an unreliable indicator with questionable validity (many who are eligible for free school meals do not claim them).