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QUANTITATIVE DATA & MIXED STRATEGIES

PREVIEW

This chapter covers the following:

- Quantitative data and secondary analysis
 - Questionnaire surveys and social domains
 - Constructing questionnaire surveys
 - Problems with the survey as a mono-method
 - Using quantitative data in multi-strategy research
 - Variations in multi-strategy designs
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Remember the adaptive approach can be used with quantitative data either in the context of ‘mono-method’ research or, *together* with qualitative data, strategy and methods in various blends or mixtures. This chapter describes some of the possibilities in this regard. It begins by describing the main forms and sources of quantitative data and how they may be used to throw light on the key problem-questions that drive adaptive research. This is followed by a discussion of the questionnaire survey in mono-method research, along with the more general advantages and disadvantages of questionnaire surveys. The rest of the chapter describes some productive ways of blending or mixing quantitative and qualitative data in small-scale research.

Quantitative Data and Secondary Analysis

Different types of quantitative data can be used for investigating the key problem-questions from a social domains perspective. These are (1) ‘free-standing’

quantitative data, (2) governmental or ‘official’ statistics, and (3) other (often professional) researchers’ data.

Free-standing quantitative data

‘Free-standing’ data are distinguishable from the other two types by the fact that they are not produced by governmental sources or by the professional social research community. There is a range of different types within this category. For example, there are many examples of market research organisations, such as Mintel, CIPS, Markit, which endeavour to provide ‘intelligence’ (statistics, information and market research) on various social activities related to areas such as the food industry, the financial industry, the leisure industry, and so on. Equally, many business organisations produce their own internal research and audits, or solicit external consultations, which are often published and/or are accessible to the public. Similarly, artistic organisations linked with theatre, film and music frequently generate quantitative data through internal and external audits, statistics and research, for example, surveys of pay, salaries and working conditions.

It is always important to bear in mind questions about the credibility and reliability of such data (see later comments). Nevertheless, quantitative data of this kind can play a valuable role in adaptive research since it attempts to combine and integrate it with qualitative data. In this regard, free-standing quantitative data provides a fuller picture of social organisational features and processes (settings and contexts) that can be used to complement qualitative data which emphasises individual behaviour and/or social interaction. The mixture of data types and sources thus gives an impression of how organisational and interactional features combine in social life.

For example, Mintel provides quantitative measures of British gym ownership and gym use. The quantitative data generated by Mintel on gym ownership and gym use (C. Johnston in *The Times* 2011) could be used most profitably in conjunction with the kind of small-scale project mentioned in previous chapters. For example, in relation to the market share of the top seven gym operators (accounting for 23 per cent of clubs and 39 per cent of members), the smallest is Nuffield Health, with 51 clubs and 150,000 members, and the largest is David Lloyd Gyms, with 79 clubs and 450,000 members. Mintel also describes the threefold categorisation of gym and health club users, and potential target user groups, such as:

- 1 The ‘Fit’ category refers to men in both younger and older age groups who are wealthy/affluent and tech-savvy. From this group, 26 per cent use a health and fitness club.
- 2 The ‘Healthy in Mind’ category refers to the 25–54 age range, those who are less affluent, and parents. From this group, 16 per cent use a health and fitness club.

- 3 The ‘Inactive’ category refers to women in the 25–34 age range, parents, over 65s/retired/affluent. Of this group, 6 per cent use a health and fitness club.

Such quantitative information helps the researcher ‘block-in’ the background parameters of gym use (its social-organisational aspects) in the form of demographic data on the users, and the characteristics of the groups that are targeted by the operators to increase their share of the market.

Other quantitative measures provided by Mintel regarding the main activities of health and fitness club users give some indication of the nature of gyms as social settings – their internal structure and characteristics. As a result, we are also given some inkling of the kinds of interaction that might take place within the social settings of gyms, as well as the personal goals, preferences and aspirations of individual users. This kind of data can be used as a template against which qualitative data or information may serve as a validity check, or to provide analytic elaboration on the interactional dynamics underlying the bare figures. The breakdown of activities (and their ‘categorisation’) in percentage terms, provided by Mintel, was as follows:

percentage figure	category
70 per cent	Exercised within the gym/fitness area
48 per cent	Any swimming
44 per cent	Swimming on my own
29 per cent	Any class
27 per cent	Taken part in fitness class
23 per cent	Any indoor sport
21 per cent	Swimming with family or friends
18 per cent	Bought from café/restaurant
16 per cent	Played indoor racquet sport
12 per cent	Played another indoor sport
12 per cent	Used a personal trainer
12 per cent	Used the health and beauty facilities
9 per cent	Taken part in a relaxation class
1 per cent	Taken part in a martial arts class

Depending on which problem-questions are driving your project, quantitative information of this kind can feed into your thinking about them. For example, the figures indicate the extent to which people engage in activities that involve close cooperation/collaboration with others (those taking ‘classes’ or ‘swimming with family and/or friends’, for example) or use public/collective facilities (such as the restaurant, café or health and beauty facilities). These activities clearly relate to problem-question 2 – the nature and dynamics of social interaction and the way in which it influences social behaviour within particular settings. The quantitative data also signals individuals’ priorities. This includes, for example, preferring to use the fitness centre for socialising or

maintaining social bonds rather than a concern with body image, fitness or weight-control issues. The rates of more solitary activities ('swimming on my own' or exercising within the gym) indicate a concern with issues about body image, fitness or weight control and thus are more relevant to problem-question 1 – to do with personal identity and social involvement.

When used alongside qualitative data, such as directed interviews and/or observations in gyms, such quantitative measures can stimulate ideas, hypotheses and concepts about social activities within these settings. In this sense, using quantitative and qualitative data in a *complementary* fashion allows them to reciprocally influence each other and may give rise to new analytic ideas, concepts and explanations.

Official statistics

Official statistics offer another type of quantitative information that can be employed as complementary background for qualitative data on social behaviour. The Office for National Statistics produces *Social Trends* (2010), which includes key official (government) statistics covering areas of social life such as labour markets, education, crime and justice, transport, households and families, lifestyles, and so on. Also, official statistics in the form of census data and registrations of births, marriages and deaths are a valuable source of background information on social settings and contexts. In general, such statistics offer a wide variety of social indicators, including the gender and ethnic composition of various labour market segments, rates of work remuneration, criminal activity, alcohol and drug consumption, waiting lists for hospital appointments, and so on.

Depending on 'what' these documents record, they may be regarded as more or less impartial (and hence reliable and valid) indicators of a factual reality. For example, birth and death rates, marriage, cohabitation and divorce are phenomena about which there is little disagreement. However, other social phenomena, such as levels of poverty or unemployment, can be measured in terms of different – sometimes competing – criteria which can make a big difference to the figures and what they 'mean' or 'show'.

Crime figures are famously subject to such disputes, depending on how the figures or rates themselves are constructed. For example, rates for particular crimes may vary because of under-reporting by members of the public or because some crimes are given a low priority by the police, and so on. Much crime, therefore, goes unrecorded. Suicide statistics are also subject to disputation for similar or parallel reasons. Where there are problems of measurement, whether with the definition of what counts as the phenomenon of interest or where there are vested interests involved, then such statistics have to be treated with caution (Bryman 2008; Denscombe 2007).

Nevertheless, the quantitative measures provided by official statistics can provide a useful platform on which to develop ideas, particularly about the settings

and contexts of specific social activities. As a consequence, they may feed into ideas about the problem-focus, design and direction of research projects, especially those using quantitative and qualitative data to complement each other.

Secondary data from professional research

Published data by professional (usually university-based) researchers completes this trio of quantitative data sources. Data from such research can be found either in professional journals or in data archives (such as the UK Data Archive at the University of Essex or the Australian Social Science Data Archive). Along with free-standing data and official statistics, this kind of data can be considered as *secondary data* and can be used in conjunction with *primary data* perhaps gathered for an original small-scale project. In this regard, then, all three sources offer quantitative data suitable for *secondary analysis* – that is reanalysing the data in relation to your own research problems and questions.

Bryman (2008a: 296) has pointed out the advantages of secondary analysis, especially for undergraduate students doing small-scale research projects, but also for postgraduates doing more substantial pieces of research. First, it allows access to data sets of high quality which students would not be in a position to produce on their own because of lack of time, money and expertise. Moreover, because secondary analysis uses existing data sets, the need for data collection is eliminated and hence the researcher is able to spend more time on *analysis*. This creates the opportunity for the researcher to come up with novel interpretations of the data.

The data sets used in secondary analysis, especially those produced by professional social scientific researchers, are of a particular high quality. That is, they are usually based on large (often national) samples that have been rigorously selected and are thus ‘as close to being representative as one is likely to achieve’. This is especially important since the ‘representativeness’ of the sample ensures rigour and validity in survey analysis. In this respect, student projects couldn’t even get ‘close to the coverage that such data sets attain’ (Bryman 2008a: 297). Moreover, many of these data sets have been generated by highly experienced researchers, a fact which provides another check on the quality and validity of the data.

Questionnaire Survey Research into Social Domains

Many of the data sets discussed in the previous section have been generated by questionnaire surveys. There are several different ways in which quantitative data from questionnaire surveys can be used fruitfully in the context of the adaptive approach. One of these is to use a survey as the main method of data collection.

An example of this is Pruulmann-Vengerfeldt's (2006) study of the development of information technology in Estonia which is based on three large-scale surveys conducted by the Universities of Tartu and Sodertorn in 2002, 2004 and 2005. The surveys had large samples (1,500 respondents), which were representative of the whole population and were randomly selected from 150 survey points. Estonia offers a unique case for investigating the information society. It is a small country of 1.4 million people but is one of the fastest-developing economies in the former Soviet bloc and is in the process of managing the transition from a totalitarian system to an open society.

Pruulmann-Vengerfeldt is sceptical about the extent to which the development of the information society can be measured simply in terms of the adoption of technology. Instead, the author suggests that more complex forms of measurement can be achieved by using the data from the surveys in conjunction with the analysis of social domains (Layder 1997).

The domain of psychobiography (the intermeshing of individual and social life) is reflected in survey data on individuals' attitudes towards information technology in Estonia. For example, do individuals have positive or negative attitudes to the use of new machines and technology? Does access to computers and the internet makes life easier or more enjoyable? Generally, Pruulmann-Vengerfeldt found that Estonians are very technology-optimistic: they like technology-related changes and think of the internet as necessary for the betterment of the world.

According to Pruulmann-Vengerfeldt, the influence of situated activity (interaction) is related to survey data on the extent to which people with particular lifestyles (for example, 'home-centred' as compared with 'thrill and entertainment-oriented' lifestyles) engage in computer-related activities (games, chat-rooms, creating web pages, music). It was possible to identify the lifestyle groups that are more likely to adopt information technology, with the more 'traditional' lifestyles being the least responsive in this respect.

The influence of 'social settings' was measured 'through computer adoption in the workplace, the availability and use of Open Internet Access points, and the availability and use of computers among friendship groups' (Pruulmann-Vengerfeldt 2006: 5). That Estonia has definitely moved towards an information society is indicated by the 'high level use of instant messaging technologies' which suggests that computer-mediated communication has become an important setting for discussions. In the initial survey of 2003, instant messaging was of marginal importance and used by the youngest age group. By 2005 the use of instant messaging technology had reached one-third of the whole population and its use had spread through different groups.

The influence of 'contextual resources' – the overall societal context in which we work and act (including the economic and legislative environment) – can be measured by the extent of the general availability of the internet, broadband access and speed of international connections as well as the laws that support

information society developments. How the Estonian media constructs the general discourses around the new technologies and Estonia as an ‘information society’ is also important. Pruulmann-Vengerfeldt found that the major types of discourse are ‘happy’ and ‘optimistic’ and geared towards very positive attitudes for an Estonian information society.

Constructing Questionnaire Surveys

There are obvious problems standing in the way of using national or large-scale surveys in the context of small-scale research. For such surveys to be ‘representative’ and the results statistically significant, they must be based on fairly large samples. But large-scale surveys like those in the Estonian study involve considerable time, money and expertise. As a result, they are just not a practically feasible option for many, if not most, small-scale projects. This simply reinforces the point about the usefulness and appeal of secondary analysis. Using existing data sets from professional researchers and organisations and reanalysing them is highly cost-effective.

Of course, this does not prevent surveys of more modest scope and scale being harnessed to small-scale research objectives. Below I set out some *general* issues and *basic* elements of the survey method. More detailed discussions, such as how to present results, or technical questions, such as multivariate analysis, tests of statistical significance, interval scales and so on, may be found in Denscombe (2007), Bryman (2008) and Bell (2010).

Surveys are based on ‘questionnaires’ which ask a series of standardised questions about a particular topic, or topics, the answers to which are elicited from a rigorously selected group of people. A questionnaire is devised and designed and then sent out to individuals to self-complete or to fill in during a face-to-face or telephone interview. The questionnaire itself consists of direct questions – or statements – to which the individual responds by choosing from a fixed set of alternatives (such as ‘agree’, ‘disagree’ or ‘don’t know’). To facilitate the process of turning these responses into numeric data, the researcher codes the answers in terms of categories decided in advance.

The most appropriate wording of questions is important, but largely boils down to common sense. The overriding issue is to achieve maximum clarity for the respondent. Thus questions should be expressed in a positive manner because negatively phrased questions will be difficult to understand. ‘Leading’ questions (those which tend to suggest a particular answer) obviously should be avoided where possible. It is also essential to make sure that each question sticks to one issue at a time (rather than evoking multiple responses in the individual), as is good design of the questionnaire and detailed planning of how it is to be administered. Ethical issues intrude here. Of central significance is that respondents must be freely willing to complete the questionnaire and not forced in any way.

Surveys and data sampling

Traditionally, in survey research it is assumed that the sample of people who will answer the questionnaire must be carefully selected so that they are ‘representative’ of the wider population from which they are drawn. In this regard, each member of this wider population must have an equal chance (or ‘probability’ – hence a ‘probability sample’) of being included in the sample. Because survey research is concerned with the population representativeness of the sample and the ability to generalise findings from the sample to the population, the response rate is crucial. A low response rate (under 70 per cent) makes it difficult to generalise with confidence from the sample to the wider population.

As far as sample size is concerned, market research companies and opinion polls use national samples of between 1,000 and 2,000 people. However, frequently small-scale research involves between 30 and 250 cases (Denscombe 2007: 28). With the latter, attention should be paid to the question of whether the sample is representative, and caution should be observed when attempting to generalise from the findings. Nevertheless, as Denscombe notes, ‘provided that the limitations are acknowledged and taken into account, the limited size of the sample need not invalidate the findings’ (2007: 28). However, as Denscombe also points out, samples should not involve fewer than 30 people or events; to use statistical analyses on smaller samples would be a mistake.

There are three main types of probability sample used in surveys. ‘Random sampling’, as already noted, requires that each sampling unit in a population has an equal chance of being included in the sample and selection can be accomplished by drawing names or numbers out of a box or by using a computer program to generate a sample using random numbers (Teddle and Yu 2007). In ‘stratified sampling’ the researcher ‘divides the population into sub-groups (or strata) such that each group belongs to a single stratum’ (such as low-, medium- or high-income) and then selects units from those strata. Finally, ‘cluster sampling’ happens when ‘the sampling unit is not an individual but a group (cluster) that occurs naturally in the population, such as neighbourhoods, hospitals, schools, or classrooms’ (Teddle and Yu 2007: 79).

Surveys and non-probability samples

Sometimes the use of a probability sample for a survey might not be appropriate for the kind of research project you have chosen, and Denscombe (2007: 16) notes three main reasons why this might be so. First, the researcher may not feel able to include a sufficiently large number of sample ‘units’ (such as individuals or events) in the study. Second, there may be a lack of information on the population to be studied, such as who or how many people or events make up the population. Third, because of this lack,

it might prove difficult to contact a sample through conventional probability sampling techniques.

But there may be other pressing reasons for choosing a non-probability (or purposive) sample instead. For example, if your focus of interest is on a particular case, event or site, or involves a ‘bounded’ group of people, then it would be appropriate to use a more focused sample, deliberately chosen for strategic purposes. This is also true with projects that attempt to integrate quantitative and qualitative data since this usually requires a degree of flexibility in design and sampling strategies. Similarly, where there is an emphasis on *exploratory* as well as *explanatory* aims, flexibility of data collection and analysis is necessary. Finally, when focusing on the empirical links between social domains and the key problem-questions they generate, some deliberate choice of the ‘best’ or most appropriate segments of data (and data samples) is essential.

In all these cases the most appropriate or relevant type of sample to use is one that is *purposive* or strategically chosen. As Denscombe (2007) points out, this involves a departure from the principle that each member of the research population stands an equal chance of being included in the sample. With purposive samples ‘the choice of people or events included in the sample is definitely not a random selection’ (Denscombe 2007: 17). Surveys samples based on purposive principles can produce interesting and important research data, so their potential should be harnessed whenever possible (see later discussion). Of course, it is crucial that the reasons underlying the selection of such samples are rigorously argued for, and clearly stated, in order to ensure conformity to scientific standards.

Specifically for use with adaptive analysis, I have developed a particular variant of purposive sampling that I term ‘problem sampling’. In the next chapter I describe this in detail and provide a fuller comparison between probability and purposive sampling. Problem sampling is uniquely tailored to the kind of research that displays some of the previously mentioned characteristics. That is, adaptive research focuses on the links between social domains (and key problem-questions) and often investigates bounded groups, events or sites. It also emphasises the integration of quantitative and qualitative data (see later examples). Finally, its flexible research designs and sampling strategies are better suited to serving its twin aims of explanation and exploration. Thus, when survey data and analysis is used in an adaptive project, problem sampling should be regarded as the most relevant selection procedure.

Problems with the Survey as a Mono-Method

There are some clear strengths of survey research. These are, first, that it produces quantitative data that can be statistically analysed ‘using straightforward

computer techniques' (Robson 2007: 43). Second, as Denscombe (2007: 31) points out, surveys enable a wide and inclusive coverage, which means they are more likely to produce data based on representative samples. As a consequence they are often thought to be more credible because of their greater generalisability (that is, the findings are more readily generalised from the sample to the wider population). However, it is necessary to be careful in choosing a survey as a 'mono-method' project because there are also disadvantages and weaknesses:

- 1 There is pressure to make the questions asked in survey questionnaires as simple and straightforward as possible because long and complex questions tend to reduce the response rates (Robson 2007). The tendency is to reduce the depth to which topics (and questions about them) can be, and are, pursued. Stated another way, there is pressure to produce rather superficial information which can only scratch the surface of the issues investigated.
- 2 The quantitative data associated with statistical analysis can give an inflated impression of, and a misplaced confidence in, the value of the research findings (Robson 2007).
- 3 Surveys rarely permit an exploration of the social environment of the phenomena being studied. Rather, they tend to 'extract' opinions, thoughts and ideas, and attitudes 'out of context', that is, away from their natural social settings and contexts. This may produce a misleadingly 'artificial' impression of the phenomena being studied.
- 4 Denscombe (2007: 32) points out that surveys that produce data based on a 'wide and inclusive coverage' may create the danger that researchers may 'become obsessed with the data to the exclusion of an adequate account of the implications of those data for relevant issues problems or theories'. Because the data are left to 'speak for themselves', their significance may be neglected.
- 5 The kind of theory that survey researchers often use focuses on discretely measurable variables (income, status, class, educational attainment, and so on) and the relationships between them. Because these variables are formally defined in advance of the research, attention is dragged away from naturally embedded social activities and processes which may be of greater explanatory importance.
- 6 This can lead to an analytic focus on a reality pre-defined by the researcher, rather than one which emerges from the accounts of participants or from a study of their social relationships. Thus, although survey data may be

wide and inclusive, this may be achieved at the expense of thinness of analysis and explanation. It is important to avoid this by adopting a more general analytic perspective and this is where a social domains perspective helps (as in the Prullmann-Vengerfeldt (2006) study).

- 7 Robson (2007: 43) argues that the fixed design approach of surveys is an advantage because it allows the researcher to accurately predict the time and resources needed to complete the data collection and analysis. This may be so, but if this is at the cost of research findings lacking depth or explanatory power, then it can no longer be deemed an advantage. A significant problem with fixed designs is that they are unable to respond and adapt to emergent developments that result from ongoing data analysis and collection. This means that findings can only confirm or question or 'test' the assumed relationship between the 'variables'. The very design of the study prevents it from unearthing new or radically different explanatory ideas.

Unless carefully handled, used as a mono-method the survey may be prone to such problems. However, using surveys in conjunction with mixed strategies and with both probability and non-probability samples, reduces the likelihood and extent of such problems.

Using Quantitative Data in Multi-Strategy Research

By adopting a 'structured but flexible' design, the adaptive approach blends 'explanatory' and 'exploratory' research objectives. Thus, it is not *limited* to issues concerned with testing and confirmation/disconfirmation. It also focuses on 'discovery' and conceptual innovation. Its flexible (emergent) multi-strategy design allows it to adapt responsively to changes in analytic ideas, concepts priorities, and so on, as a response to ongoing data collection and analysis.

A social domains perspective

Adaptive analysis is based on a view of social reality as interlinked social domains rather than uniform relationships and processes. The domains (psychobiography, situated activity, social settings and social contextual resources) have their own (internal) characteristics, but are tightly intermeshed. The multi-strategy nature of the adaptive approach, including its blending of quantitative and qualitative data, offers a means of gathering and analysing data, information and facts on domains and their interrelationships.

Integrating and blending quantitative and qualitative data

On this view, quantitative and qualitative data are blended in a complementary fashion. Quantitative data does not provide a better explanation than qualitative data any more than qualitative data is superior to quantitative data. Rather, they explain different but complementary aspects of social reality. Their analytic emphases are blended, combined and integrated through the analytic focus on social domains. That is, they are integrated in terms of what they reveal about particular social domains and how their combined effects show up in the empirical world. Specifically, they illuminate how aspects of macro and micro social reality interconnect with, and influence, each other.

Structured flexible designs and data integration

The structured flexible design aids the blending and integration of quantitative and qualitative data. Quantitative data tends to provide information on social settings and contextual resources (the ‘macro’ or wider organisational features of society), while qualitative methods and analysis supply data on psychobiography and situated activity (the ‘micro’ elements of individual agency and social interaction). Settings and contextual resources represent the wider macro environment which ‘encloses’ the micro elements and reflects the manner in which domains and different types of data intertwine and reciprocally influence each other.

Concurrent and sequential designs

As a general rule, quantitative and qualitative data analysis should take place concurrently. Both types of data throw light on complementary aspects of social reality (interrelated social domains). This aids the blending and integration of the different types of data. Generally, then, there is no need to ask which is the best ‘order’ for using particular methods or data? Do I begin with quantitative data and then move to qualitative, or begin with qualitative data and then move to quantitative? Rather, there should be a process of shuttling back and forth between the different types of data, asking the question: how does this information or data help to throw light on (explain) this other data?

However, practical problems such as availability of interviewees, access, money, time and resources – or simply not being able to do everything at the same time – may mean that different types of data and data collection must be used at different junctures, and thus in a particular sequence. If this is the case, then you must take note of any assumptions or changes in thinking and data analysis that may result from this. However, the fact that your analytic focus is trained on the links between social domains (and key problem-questions) will aid the integration of quantitative and qualitative data.

The question of the order of data collection may also arise when implementing a *planned* sequential design (see example below). In adaptive analysis this is usually associated with the sequence:

Qualitative -----> Quantitative -----> Qualitative

Figure 6.1

A preliminary qualitative inquiry serves as the basis on which questions may be formulated for a subsequent quantitative survey or structured interview. In turn, the analysis of the survey data acts as a check on the preliminary findings but is then expanded and supplemented by further qualitative data. After a deliberate ‘sequential’ start, it quickly ‘morphs’ into a concurrent design (see above), which aims at a more comprehensive picture by bringing together complementary aspects of social life (domains).

Combining explanation, exploration and triangulation

Adopting the concurrent design as your default position helps to combine exploratory and explanatory objectives, rather than treating them as separate or independent enterprises – a position taken by some proponents of mixed methods (Creswell and Plano Clark 2007; Creswell et al. 2008: 68). From the point of view of adaptive analysis, it is misleading to talk about explanatory and exploratory designs as independent ‘sequential designs’. The point is to blend and integrate (Bryman 2008b: 99) exploratory and explanatory designs along with quantitative and qualitative data. The researcher should think in terms of integrated research designs in which ‘slices’ of data *analytically* complement and reinforce each other. In this regard it is best to conceive of the structured flexible research design as one in which qualitative or quantitative inputs interrelate with each other, creating a cumulative web of interconnections.

This links up with the notion of ‘triangulation’, which refers to a particular way of cross-checking findings from different points of view. Denzin (1989) has distinguished between different types of triangulation, including data, investigator, theoretical or methodological triangulation. The multi-strategy design suggested here endorses these points of reference, but additionally includes a reference to social domains (Layder 1993). Particular clusters of social domains will be relevant to particular research projects because they will be driven by specific problem-questions. As a consequence, the process of triangulation must reflect this. The researcher must select relevant data segments/slices that will reveal the linkages between the domains in question.

Variations in Multi-Strategy Designs

In the following sections I discuss three research designs that bring together all the elements discussed above.

1 Using secondary data as a background resource

One option is to use existing (secondary) data sets and analyses and re-fashion them for your own (small-scale) project. For example, you might have started a project by collecting qualitative data focused around key problem-questions. You might wish to further ‘strengthen’ and ‘triangulate’ your analysis by integrating it with some quantitative data from survey research.

In this sense, while the secondary survey data you draw on may not be closely linked with a domains perspective, it must be broadly ‘in tune’ with such a perspective otherwise it might prove difficult to integrate the findings successfully. Additionally, many surveys are undertaken in the context of multi-method or mixed-method approaches which ensure they are more closely aligned with the multi-strategy analysis of adaptive research.

An example: smoking habits in young people

A case in point is Denscombe’s (2001) study of smoking among young people aged 15–16 years. The first part of this two-phase study was a questionnaire survey based on 12 schools in the East Midlands of England ‘selected to be representative of their catchment areas (social class, ethnic composition, urban/suburban/rural)’. From the ‘1,679 young people who took part in the survey, 1,648 usable questionnaires were returned’ (2001: 162). Of these, 46.4 per cent were males and 53.6 per cent were females. In terms of ethnicity, 71.2 per cent were whites and 24.6 per cent were South Asians. The pattern of smoking revealed by the survey largely matched the national picture for the age group ‘with nearly 1 in 3 being occasional or regular smokers, and with girls being more likely to be smokers than boys’ (Denscombe 2001: 162). The second phase of the research comprised focus group discussions and semi-structured interviews (20 groups of 4–7 people) and served to validate the results of the survey by checking with the young people themselves.

The research explored the role that smoking plays in relation to the uncertainty around self-identity and focused on what young people regard as the personal benefits of smoking. This contrasted with a view of them as ‘victims’ of external influences, such as ‘peer group pressure, family influences, social deprivation, and the interests of the tobacco industry’ (Denscombe 2001: 159). Looking ‘grown-up’ or ‘cool’ or ‘hard’ were some of the reasons that young people gave for smoking, particularly the girls,

which reflect the significance of smoking for impressing and influencing others. Self-feelings, such as being in control and ‘taking charge of your life’ in the face of known health risks, were also important, as was the paradox of the felt need ‘to fit-in’ as well as ‘to stick-out’ in terms of individuality and self-expression. In all these senses, smoking made a positive contribution to the construction of self-identity for young people.

Although the findings, methods and objectives of such a study stand in their own right, they could also be drawn on as a resource to help with small scale-projects focusing on different themes or topics and influenced by a domains perspective. Also, the use of quantitative survey data along with qualitative data from discussion groups and interviews means that it fits easily within a multi-strategy framework.

Furthermore, the ‘openness’ of its explanatory framework means that elements of the study could be conjoined with several of the key problem-questions. For example, the domain of psychobiography is touched upon in the concern with self-identity, power and control (being in control of one’s life, self-empowerment). Situated activity is relevant to how young people perceive themselves to be seen by others in their peer group – for example with regard to looking ‘cool’ or ‘hard’, and so on.

These influences take place against the background of the school as a social setting – although its role is not really emphasised in the study. The same is true for the role of contextual resources, although the stress on the positive personal benefits of smoking is an important counterweight to the influence of external factors (the interests of the tobacco industry and social deprivation). It highlights important information about the way social domains affect particular aspects of behaviour.

General issues

Such secondary data can provide an important *supportive backdrop* to small-scale projects which focus on quite different topics and issues, such as friendship or romantic involvements in schools or universities, or questions about self-identity or emotional expression in other types of setting. In this sense, as a researcher, you are reanalysing secondary data in relation to your own project with a view to reinforcing your own findings, by drawing attention to *similarities* or *contrasts* with the secondary data. The smoking habits of 15–16 year olds and the reasons they give for them might form a supportive background for small-scale studies of many other aspects of youth culture.

2 Developing explanation and analysis

Identifying relevant secondary data not only involves technical or practical questions about whether they ‘fit-in’ with your own project. It is also a case of recognising their potential explanatory role in your own project. An *explanation* will, in all probability, evolve over time (sometimes drastically)

as a result of ongoing data collection and any consequent finessing of ideas and concepts.

Of course, explanations should be subjected to rigorous empirical testing and counter-arguments to probe the limits of their strength and viability. If necessary, they must be altered, modified or supplanted by any alternative concepts and explanations that may emerge during the project. In this respect the structured flexible design and multi-strategy approach can help in the construction and emergence of explanations.

An example: careers research

As part of my research on careers in the acting profession, I conducted qualitative (semi-structured) interviews with actors (Layder 1993). I was trying to find out what their career experiences were and to get some overall impression of how the occupation was organised. From these interviews it became obvious that agents and casting directors (career ‘intermediaries’) were highly influential in shaping actors’ careers, so I needed to expand my interview samples to include them. I also needed to extend my knowledge of the interactional networks and processes that determine actors’ career fates.

Around the same time as conducting the interviews I made contact with the actors’ union and was made aware of (and given access to) quantitative data from surveys conducted by the union documenting actors’ employment and incomes. Careful analysis of this data, by comparing it with a previous survey (conducted seven years earlier), revealed that the labour market for acting work was segmented into three relatively stable income clusters which underpinned the general status and career hierarchy of the profession. At the top there was an inner circle of ‘stars’ earning the highest incomes, comprising around 5 per cent of the total. Below them there was a segment of middle-income actors – the ‘inner circle’ – comprising around 15 per cent of the total. At the base of the hierarchy were the mass of actors (80 per cent) who earned the least from work in acting and who experience regular, and sometimes lengthy, periods of not working in acting (or ‘resting’ as the euphemism has it).

In terms of social domains, the problem-question was: ‘how do the situated activities and social links between agents and castings directors help shape the labour market in acting (the social setting of careers)?’ The qualitative data from agents and casting directors and the quantitative data from the union surveys were analysed during the same time period. Each informed the other so that appropriate adjustments (in interview questions) followed from the analysis of the labour market survey data. Conversely, analysis of the interview data firmed up and added detail to my outline grasp of labour market segmentation.

The interviews began to focus on the work routines of agents and casting directors – how they chose actors for parts, their networking with each other, and so on. In short, this information revealed the way in which the

work routines and interconnections between agents and casting directors tended to reproduce and perpetuate the labour market segmentation. The quantitative data suggested an economic dimension to the labour market and a rather stable structure of segments, while the qualitative data indicated the kinds of social processes that were involved in the establishment and maintenance of the stratified labour market.

Through their intersecting influences, the two kinds of data and analysis fed off each other in a complementary fashion. The overall effect was to produce an emergent explanation of the links between social domains – the interweaving of settings and the social activities that serve to reproduce them. In this sense, quantitative data is not used simply as a check or restraint on claims derived from qualitative analysis or vice versa, and neither was considered to be the ‘superior partner’. Rather, the resulting synergy gave rise to an ‘emergent’ explanation which would have been unlikely to occur in the absence of a flexible research design and sampling strategy.

3 Planned sequential designs

Like the others, this type of design relies on a multi-strategy approach and a focus on social domains. However, it also relies on original or ‘primary’ data (that is, data gathered specifically for the current project) as opposed to choosing relevant secondary data (data collected by others) and reanalysing it (as with developing explanations). Further, it emphasises a particular sequence in the use of quantitative and qualitative methods while pursuing a concern with exploration as well as explanation. It does this by triangulating different types and sources of data around an analytic concern with social domains.

An example: Young people and social capital

Boeck (2011) has used a domains perspective to examine how young people generate ‘social capital’ (skills, resources and contacts) through their social networks. Twenty-one organisations participated in the study, including youth groups, the youth justice system, a school and a college in the Midlands area of the UK. The total sample was 547 young people aged between 13 and 29. The use of non-probability samples in both quantitative and qualitative aspects of the study demonstrates the fruitfulness of such sampling strategies, especially in relation to the deployment of a survey questionnaire.

Boeck’s research design was organised in three phases. The first phase consisted of the collection of qualitative data from discussion groups (17) and in-depth interviews (16), which produced emergent themes and categories. The analysis of this data formed the basis for a second phase, which

was a survey questionnaire that was sent out to 500 people. The questionnaire included both ‘closed’ or ‘fixed-choice’ questions, which yielded numeric data, as well as open-ended survey questions, which produced qualitative data. The third and final phase involved the interpretation of the combined survey (quantitative + qualitative) results and integration with the original results of phase one.

The research yielded many intriguing findings, explanations and policy suggestions concerning the best ways to enhance the social capital of young people ‘at risk’ of crime and substance abuse – and thus of diverting them from such activities. Boeck provides a more accurate understanding of the nature of young people’s social networks and the way they are used. This was achieved via the employment of a domains perspective to give focus to the empirical data and its analysis, while using a mixed-method approach to data collection. The overall effect was to produce a subtle, multi-level analysis of a complex social phenomenon which throws light on the ways in which domains influence young people’s ‘bridging’ and ‘bonding’ social networks, and how the combined influence of situated activity and social settings enhance or deplete the social capital of young people.

The research resembles a planned sequential design and pursues both exploratory and explanatory objectives. The first, qualitative, phase is used to stimulate thinking about the second, quantitative survey phase, while phase three combines the two via an analytic dialogue. But it also has a flexible design which allows it to explore analytic themes and emergent ideas. Moreover, the study also pursues explanatory objectives by showing how empirical data throw light on social domains and key problem-questions.

Final Comments

Free-standing data, official statistics and secondary data from surveys and interviews all offer rich sources of quantitative information and may be used in small-scale projects structured around key problem-questions and a social domains perspective. Although it is possible to use surveys as a ‘mono-method’, there are many practical problems associated with obtaining large and representative samples (time, money and resources among them). Many engaged in small-scale research (particularly undergraduates) would find these problems insuperable, so I have emphasised the efficiency and convenience of using secondary material as a source of quantitative data. Also, combining quantitative and qualitative data is a sound basis on which to construct robust research designs (those that enhance validity and are both explanatory and exploratory). Thus, I have suggested several ways in which such aims and objectives can be maximised by using mixed-strategy designs.

Checklist for Research Log Notes

- What quantitative data is available to you (free-standing, official statistics, secondary data from surveys and interviews)?
- How is such data appropriate to your main problem- and topic-questions?
- How will you employ such data in your project? Will you use it to illustrate particular features of social settings and contexts (such as gender, age, class or ethnic dimensions)? Will you use it to show how particular domains (such as situated activity and social settings) interrelate?
- How will you use the quantitative data in relation to qualitative data? For example, will you adopt a concurrent design or a planned sequential design? What are you exploring and what are you attempting to explain?
- Are you aware of the problems involved in mixing strategies, particularly combining quantitative and qualitative data? What are they with specific reference to your own project?