Delphi consensus process round 1 questionnaire

Note: Direct output from Qualtrics survey software

Reporting standards for organisational case studies: round one

Thank you for taking part in this Delphi exercise which will run over a period of 3 weeks and require you to complete two rounds of questions. This first questionnaire should take about 30 minutes to complete, and responses should be submitted by 5pm (UK time) on Monday 16th February. The aim of the exercise is to develop a minimum set of standards to improve the quality and consistency of reporting of organisational case studies. For the purposes of this exercise, we have defined this as any case study focused on "an organized body of people with a particular purpose, such as a business, government department, charity, etc"(as opposed to a case study of individuals). The results will be collated and circulated with the second round of the exercise about two weeks after closure of the first round. The second round is likely to require fewer responses and therefore take less time to complete. Your continued participation would be greatly appreciated in order to achieve as clear a consensus as possible.

In this first round, we will present you with all unique items identified from a review of the methodological literature. Each item is followed by one or more numbered references e.g. (1,3,7). These refer to the original source of the item - usually a methodological text. Source details are provided at the end of the survey. We have made the assumption that some form of reporting standard is both possible and desirable, so emphasis has been placed on practical suggestions rather than more abstract or theoretical issues. Items have been de-duplicated and grouped under headings for ease of rating. We have tried to avoid making judgements about the value of individual items, since this is the objective of the Delphi consultation. You are asked to indicate your personal preferences for each item, by rating it as 'Essential', 'Desirable', or 'Not necessary'. If you believe an item is absolutely necessary when reporting an organisational case study, please rate it as "Essential". Items that you consider useful but not essential should be marked as "Desirable". If you consider an item to be unnecessary, unclear, redundant, or not particularly meaningful, please rate it as "Not necessary". After rating the existing items, you will be given the opportunity to suggest any additional essential items, as well as comment on the structure and grouping of items presented here.

Describing the design (Section 1 of 7) Please rate how important it is to include the following items when reporting the design of the organisational case study

Define the research as a case study(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe why case study is the appropriate method(2)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Define the policy relevance(2)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

State the broad aims of the study(7)

- Essential
- Desirable
- Not necessary

Identify the purpose of the case study(1, 4) e.g. Exploratory: The topic is new (i.e. little qualitative or quantitative evidence)(2, 6) Explanatory: There is some quantitative evidence but little is known about 'how' or' why' aspects(2, 8, 6) Intrinsic: The case is selected on its own merits. The case is selected not because it is representative of other cases, but because of its uniqueness(5, 6) Instrumental / Example: Selecting a "typical" case that allows investigation of an issue or phenomenon(5, 6) Both quantitative and qualitative evidence exists but there is a need by policy stakeholders for information about current or best practice in specific contexts (2) Evaluative: Evaluation of the impact of practice or intervention(6)

- Essential
- Desirable
- Not necessary

Identify the broad approach(es) e.g. Testing a theory(6); Building a theory(6); Drawing a picture/illustrative(6); Descriptive(6); Interpretive(6); Experimental(6)

- Essential
- Desirable
- Not necessary

Identify the process(es) (6) State whether it is a single or multiple/collective case study(1, 6, 9) (5, 10), along with any other design characteristics e.g. Embedded/Nested(1, 6); Parallel(6); Sequential(6); Retrospective(6); Cross-sectional / Snapshot(3, 6); Longitudinal / Diachronic(3, 6)

- Essential
- Desirable
- Not necessary

Define the case broadly e.g. in a case study of "neighbouring" the case might be defined as either a group of neighbours (people) or as a geographical neighbourhood (place)(1)

- Essential
- Desirable
- Not necessary

Identify the specific case(s)(1, 5) and justify the selection(5, 6) e.g. Key case (good example; classic or exemplary case) (6); Outlier case (showing something interesting because it is different from the norm) (6); Local knowledge case (example chosen on the basis of personal experience) (6)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe the boundaries of the case i.e. distinguish the subject of the case study (the "phenomenon") from external data to the case (the "context"). Spatial, temporal, and other concrete boundaries should be considered. Abstractions (e.g. the concept of 'neighbouring') cannot be considered a case. (1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe setting/context (physical, economic, historical, cultural, aesthetic) surrounding the case(5, 7)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Mention any rival cases that were considered(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe the likely burden and risks associated with participation for those who (or the site(s) which) comprise the case study(11)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Offer some evidence to the audience that the heterogeneity of the sample of cases is representative of the heterogeneity of the target population(9)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe some early assessments of progress to see if the case should be dropped and another selected(5)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

State the research question(s)/hypotheses(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe how the final research question(s) was developed and refined from the broad prima facie question(s)(2, 5, 6, 7)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Rate the importance of the following tools and techniques for describing development of the final research question

	Essential	Desirable	Not necessary
Literature review(6)	❍	❍	❍
Storyboards / brainstorming / mind maps(6)	❍	❍	❍
A prior appreciation of the theoretical issues and setting(s)(11)	❍	❍	❍
"Issue questions" or "issue statements". ("Issues" identify one or more aspects of the situation or circumstance surrounding the case, in order to frame the inquiry)(5)	❍	❍	❍
Resolution of etic and emic issues. (Etic issues are brought in from the researcher from outside; emic issues emerge from inside the case. As the researcher begins to integrate etic and emic, the research question(s) evolves)(5)	❍	❍	❍
Retitling the inquiry on a regular (e.g. monthly) basis in order to note the evolution of the research question(s)(5)	❍	❍	❍
"Progressive focusing": if early research questions are not helping to thoroughly understand the case, or if new issues become apparent,	❍	❍	❍

change the research questions(5)			

State the deliverables required(4)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

State the implications of the resources available to the researcher(4)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Acknowledge the potential conflicts between the needs and interests of any sponsoring organizations and the requirements of the research objectives. Show judgment to ensure that an appropriate balance between these is maintained(4)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Specify the need for recommendations(2)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Present the case study protocol and describe how it was used(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Do you have any other comments about the design section? (an opportunity to add more items will be given later in this survey)

Background, context, and theory (Section 2 of 7) Please rate how important it is to include the following items when reporting the background, context and theory of an organisational case study

Report the findings of a thorough literature review(1, 7)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe any other preparatory research components (e.g. expert interviews, expert workshop)(2)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Report whether a pilot case study has been conducted(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe the theory, propositions and related issues developed to guide the case study and to generalise its findings(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Rate the importance of the following techniques for describing the development of theory, propositions and issues

	Essential	Desirable	Not necessary
Outline the conceptual structure (i.e. themes or issues)(5) The conceptual framework should identify the main facts and events of interest in the subject of study and the main features of the context in which these facts and events are occurring(9)	❍	❍	❍
Outline the (logical) connection between the research question(s) and the data collected(1)	❍	❍	❍
Define the logic linking the data to the propositions (i.e. what kind of analytic techniques were used)(1)	❍	❍	❍
Define the criteria for interpreting the findings (i.e. explicitly consider rival explanations (theories) at the outset, to guide decisions about which data should be collected, unless using grounded theory)(1)	❍	❍	❍
For purely exploratory studies without any initial propositions, state a purpose and the criteria by which the exploration is judged	❍	❍	❍

successful or not(1)			
State which of the variables being investigated are hypothesized to be most important for explaining the phenomenon(8)	❍	❍	❍
Describe whether a range of experts were consulted during the final stages of developing the conceptual framework and report the findings of this consultation(9)	❍	❍	❍

Do you have any other comments about the background, context and theory section? (an opportunity to add more items will be given later in this survey)

Describing the data collection (Section 3 of 7) Please rate how important it is to include the following items when reporting the data collection

Describe how data were collected(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe whether the data provided an “up close” and “in-depth” coverage of the case(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe the sources of evidence used(1, 5) e.g. Documentation(1, 5); Archival records(1); Interviews(1) (5); Direct observations(1, 5); Participant-observation(1); Physical artefacts(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

List evidence sources in order of importance; give further details about specific items within each source(1, 4)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

State that all the evidence was examined(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe the data collection tool(s) (e.g. questionnaire or observation protocol), including a description of any piloting or field testing of the tool(3, 5)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

State whether a comprehensive case study database, in which the raw data can be inspected (including notes, documents, tables and narratives) is available to readers(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe data protection measures(2)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe any ethical considerations and obtainment of relevant approvals, access and permissions(1)

- Essential
- Desirable
- Not necessary

Describe the observation plan and how it was developed(3)

- Essential
- Desirable
- Not necessary

Search for data until saturation is reached, that is, the evidence becomes redundant, with no new information(3)

- Essential
- Desirable
- Not necessary

Describe how the data were coded(3, 4)

- Essential
- Desirable
- Not necessary

Describe the likely impact of the researcher on events and the behaviour of participants at the case study site, and the researcher's own beliefs, values and prior assumptions(4, 12)

- Essential
- Desirable
- Not necessary

Do you have any other comments about the data collection section? (an opportunity to add more items will be given later in this survey)

Describing the data analysis (Section 4 of 7)Please rate how important it is to include the following items when reporting the analysis of an organisational case study

Describe the analysis methods(1)

- Essential
- Desirable
- Not necessary

Structure the reporting of the analysis around the research questions(13)

- Essential
- Desirable
- Not necessary

State whether an inductive (e.g. grounded) or deductive (e.g. hypothesis testing / theoretical framework) approach to the analysis has been taken(1, 10, 14)

- Essential
- Desirable
- Not necessary

In collective case studies, analyse data relating to the individual component cases first, before making comparisons across cases(11)

- Essential
- Desirable
- Not necessary

Describe the analytic approach in detail(1) e.g. Pattern matching. If empirically based patterns appear similar to predicted patterns, the results can strengthen internal validity. May further strengthen through theoretical replication or literal replication across studies. Need to acknowledge possible threats to validity (e.g. confounding variables) and show that these cannot account for the patterns observed.(1) Patterns may follow from research questions or emerge from the analysis(5) Explanation building i.e. stipulating a presumed set of causal links about a phenomenon or “how” or “why” something happened. Likely to be an iterative process, in which an initial explanatory proposition is compared against the findings of a case, revised if necessary, then compared against other details of the case, and repeated as many times as needed. However, there is a risk of drifting from the original research question or introducing bias; suggested safeguards are frequently checking the original purpose, employing “critical friends”, and examining alternative explanations.(1) Categorical aggregation versus direct interpretation - the former looking for repeated observations before making an interpretation, the latter making an interpretation about a specific observation(5) Time-series analysis. Specifically looking at empirical trend(s) over time for a dependent variable and comparing this empirical trend with one or more theoretical predictions. Like pattern matching, but explicitly involving statistic techniques. Simple time series might

involve a linear trend for a single dependent variable; more complex series might involve non-linear trends and/or multiple variables. The researcher must identify the specific indicator(s) to be traced over time, the time intervals to be covered, and the presumed relationships among events prior to collecting the actual data.(1) Logic models: Describe a repeated cause-and-effect sequence of events linked together (i.e. intervention/phenomenon immediate outcome intermediate outcome ultimate outcome). Provides an initial hypothesis about the case and then provides a framework for analysing the data. Can use quantitative, qualitative or both kinds of data. The need to consider the influence of real-world and other contextual conditions will vary between studies.(1) Cross-case synthesis. Applies only to multiple cases. Synthesising two or more independent cases can be more robust than having just a single case. Empirical data from multiple cases could be used to examine a theory, of be combined statistically for precision (i.e. meta-analysis)(1)

- Essential
- Desirable
- Not necessary

Discuss plausible rival explanations for the observed data(1) e.g. Null hypothesis - the observation is solely due to chance (1) Threats to validity e.g. poor instrumentation, regression selection(1) Investigator bias e.g. “experimenter effect”, reactivity in field research(1) Direct rival e.g. results due to intervention B, not intervention A(1) Co-mingled rival e.g. intervention A plus one or more other interventions contributed to the results(1) Implementation rival - results due to the implementation process, rather than the substantive intervention(1) Rival theory - a theory different to the original theory explains the results better Super rival - a force larger than but including the intervention accounts for the results(1) Societal rival -social trends, not any particular force or intervention account for the results(1)

- Essential
- Desirable
- Not necessary

Identify software and describe how it was used(1)

- Essential
- Desirable
- Not necessary

Present raw data (including illustrative quotes) where necessary(2,5)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Omit secondary data that is not essential for understanding and evaluating the case study analysis(4)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Present data in tabular form to summarise and compress data(4)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Array and display data in different ways(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe how promising patterns, insights and concepts were identified(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Describe the criteria used to maintain the overall quality of a case study(1, 12)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Address the concept of construct validity (i.e. identifying correct operational measures for the concepts being studied)(1)

- Essential
- Desirable
- Not necessary

Address the concept of internal validity [in explanatory or causal studies](i.e. establishing a causal relationship, whereby certain conditions are believed to lead to other conditions, as distinguished from spurious relationships)(1,12)

- Essential
- Desirable
- Not necessary

Address the concept of external validity (i.e. defining the domain to which a study's findings can be generalised)(1)

- Essential
- Desirable
- Not necessary

Address the concept of reliability (i.e. demonstrating that the operations of a study can be repeated with the same results)(1)

- Essential
- Desirable
- Not necessary

Describe how triangulation was carried out,(1) especially in confirming and disconfirming major assertions(5) e.g. data triangulation (validation); (1, 5) investigator triangulation(1, 5); theory triangulation(1, 5;) methodological triangulation(1, 5)

- Essential
- Desirable
- Not necessary

Outline a chain of evidence that allows the reader to follow the derivation of any evidence from initial research questions to ultimate case study conclusions, via the collected data(1,4,9,10)

- Essential
- Desirable
- Not necessary

Do you have any other comments about the data analysis section? (an opportunity to add more items will be given later in this survey)

Interpreting the results (Section 5 of 7)Please rate how important it is to include the following items when interpreting and discussing the results of an organisational case study

State any caveats about the study(1)

- Essential
- Desirable
- Not necessary

Rate the importance of the following when describing the strengths and weaknesses of the case study

	Essential	Desirable	Not necessary
Describe any inherent shortcomings in the design and analysis and how these might have influenced the findings(1)	❍	❍	❍
Consider the appropriateness of methods used for the question and subject matter and why it was that qualitative methods were appropriate(10)	❍	❍	❍
Discuss the sampling (or case selection) and explanation of sampling strategy(10)	❍	❍	❍
Discuss the data analysis (was it conducted in a systematic way and was it successful in incorporating all observations and dealing with variation) (10)	❍	❍	❍
Discuss the worth & relevance of the research (10)	❍	❍	❍
Draw attention to any discrepant data – evidence that complicates emerging understanding(7)	❍	❍	❍
Discuss the representativeness of data – incorporate all shades of opinion(7)	❍	❍	❍

Display enough evidence for the reader to reach their own conclusions(1, 10)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Rate the importance of the following for allowing the reader to reach their own conclusion

	Essential	Desirable	Not necessary
Use description to provide the reader with a "vicarious experience, or a sense of being there in person, and to enable understanding of the experience from the informants" perspectives.(3) Try to anticipate what vicarious experiences will do for the reader, and organize the manuscript in a way that facilitates naturalistic generalization(5)	❍	❍	❍
Provide enough raw data prior to interpretation for readers to consider their own alternative interpretations(5)	❍	❍	❍
Ensure that the assertions are sound, neither over- nor under-interpreting the data (5)	❍	❍	❍
Outline the researcher's perspective and relationship to the case(s). The audience needs to understand researcher's role and perspective to accept findings(5, 13, 14)	❍	❍	❍
Ensure the account is reflexive i.e. "Sensitivity to the ways in which the researcher and research process have shaped the data	❍	❍	❍

collection" and provision of sufficient information of research process for readers to judge(10)			

Do you have any other comments about the interpretation section? (an opportunity to add more items will be given later in this survey)

Sharing the results and conclusions (Section 6 of 7) Please rate how important it is to include the following items when reporting and disseminating the findings of an organisational case study

Define the audience, whether for written or oral compositions(1)

- Essential
- Desirable
- Not necessary

Identify the relevant stakeholders(2)

- Essential
- Desirable
- Not necessary

Identify the researcher position. If the researcher has a close relationship or a past history with the case being studied, this information should be made transparent(3)

- Essential
- Desirable
- Not necessary

Be very clear about the research outcomes and how the organization(s) will benefit from involvement(4)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Aim for a thoughtful, balanced, and transparent tone of reporting(1)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Ensure the report is easy to read(5)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Aim for a sense of story to the presentation(5)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Think about narrative dramaturgically i.e. in terms of actors, roles and stages(6)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Consider the most appropriate overall reporting structure(1, 3, 4) e.g. Linear-analytic(1); Comparative(1); Chronological(1); Theory-building(1), “Suspense” (1); Unsequenced(1); A chronological or biographical development of the case(5); A researcher’s view of coming to know the case(5); Description one-by-one of several major components of the case(5)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Review and re-compose the report until done well, using the following techniques:

	Essential	Desirable	Not necessary
Where possible have informants / participants review the draft report(1)	❍	❍	❍
Consult with a range of experts with diverse points of view during after drafting conclusions(9)	❍	❍	❍
Revise report taking account of feedback from stakeholders(2)	❍	❍	❍
Include the reactions of data sources (and other prospective readers) to the accounts(5)	❍	❍	❍
Check ideas and explanations with those in the culture (e.g. organization)(7)	❍	❍	❍
Be reflective and have feedback workshops with on site collaborators to "road test" early formulations(10)	❍	❍	❍

Publish the report(2)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Disseminate to scientific (exploratory and explanatory case studies) and policy audiences (exploratory and example case studies)(2)

- ❍ Essential
- ❍ Desirable
- ❍ Not necessary

Do you have any other comments about the sharing the results section? (an opportunity to add more items will be given later in this survey)

Further essential items (Section 7 of 7) Please add any additional items that you think are essential to a set of reporting standards for organisational case studies. Please be as concise as possible; these items will feed into the second round of the survey.Please separate multiple items with a semi-colon (;)

Describing the design
Background, context and theory
Describing the data collection
Describing the data analysis
Interpreting the results
Sharing the results and conclusions
Other (not captured by the headings above)

If you think that additional headings are required to capture the essential items, or that the current headings should be reordered, give details below (please be as concise as possible)

Original items were drawn from the following texts: 1. Yin RK. Case study research: design and methods. Thousand Oaks, California: SAGE Publications; 2014. 2. Huws U, Dahlmann S. Quality standards for case studies in the European Foundation. Dublin: European Foundation for the Improvement of Living and Working Conditions, 2007. 3. Moore TS, Lapan SD, Quartaroli MT. Case study research. In: Laplan SD, editor. Qualitative research: an introduction to methods and designs. San Francisco, CA: Jossey-Bass; 2012. p. 243-70. 4.Darke P, Shanks G, Broadbent M. Successfully completing case study research: combining rigour, relevance and pragmatism. Information Systems Journal. 1998 Oct;8(4):273-89. PubMed PMID: WOS:000076484900002. Pubmed Central PMCID: Include. English. 5. Stake RE. The art of case study research. Thousand Oaks, CA: Sage Publications; 1995. 175 p. 6. Thomas G. How to do your case study : a guide for students and researchers. Los Angeles: Sage; 2011. 7. Gillham B. Case study research methods. London Continuum; 2000. 8. Kaarbo J, Beasley RK. A practical guide to the comparative case study method in political psychology. Polit Psychol. 1999 Jun;20(2):369-91. PubMed PMID: WOS:000081422300006. Pubmed Central PMCID: Include. English. 9. Greene D, David JL. A research design for generalizing from multiple case studies. Eval Program Plann. 1984;7:73-85. PubMed PMID: Peer Reviewed Journal: 1985-00063-001. Pubmed Central PMCID: Include. 10. Fitzgerald L, Dopson S. Comparative case study designs: their utility and development in organizational research. In: Buchanan DA, Brynam A, editors. The Sage handbook of organizational research methods Thousand Oaks, CA: Sage Publications Ltd; 2009. p. 465-83. 11. Crowe S, Cresswell K, Robertson A, Huby G, Avery A, Sheikh A. The

case study approach. BMC Med Res Methodol. 2011;11:100. PubMed PMID: 21707982. Pubmed Central PMCID: Include. English. 12. Meyer CB. A case in case study methodology. Field Methods. 2001;13(4):329-52. PubMed PMID: Peer Reviewed Journal: 2001-05194-001. Pubmed Central PMCID: Include. 13. Hays PA. Case study research. In: deMarrais K, Lapan SD, editors. Foundations for research: methods of inquiry in education and the social sciences. Mahwah, NJ: Lawrence Erlbaum Associates Publishers; 2004. p. 217-34. 14. Gilgun JF. A case for case-studies in social-work research. Soc Work. 1994 Jul;39(4):371-80. PubMed PMID: WOS:A1994NU43600006. Pubmed Central PMCID: Include. English.

That is the end of the rating section for this round of the Delphi exercise. All responses are anonymous. In order to assist in ensuring we have an appropriate range and distribution of respondents, we ask you to provide the following information in relation to your primary role/interest:

Designation

- ❍ Health, education, or social care practitioner
- ❍ Policy maker
- ❍ Commissioner / funder of research
- ❍ Researcher
- ❍ Research methodologist
- ❍ Journal editor / board member / involved in publishing
- ❍ Other _____

Main area(s) of research interest related to organisational case studies

How many organisational case studies have you authored?

- ❍ 0
- ❍ 1-5
- ❍ 6-10
- ❍ >10

How many organisational case studies have you been involved with other than as an author? (e.g. peer review; commissioning; advisory role)

- ❍ 0
- ❍ 1-5
- ❍ 6-10
- ❍ >10

What proportion of your work relates to research methodology?

- ❍ 0
- ❍ 1-40%
- ❍ 41-60%
- ❍ >60%