

Checklist Approach

Critical Appraisal Skills Programme (CASP) making sense of evidence

10 questions to help you make sense of qualitative research

This assessment tool has been developed for those unfamiliar with qualitative research and its theoretical perspectives. This tool presents a number of questions that deal very broadly with some of the principles or assumptions that characterise qualitative research. It is *not a definitive guide* and extensive further reading is recommended.

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of qualitative research:

- **Rigour: has a thorough and appropriate approach been applied to**
- **key research methods in the study?**
- **Credibility: are the findings well presented and meaningful?**
- **Relevance: how useful are the findings to you and your organisation?**

The 10 questions on the following pages are designed to help you think about these issues systematically.

The first two questions are screening questions and can be answered quickly. If the answer to both is “yes”, it is worth proceeding with the remaining questions.

A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

The 10 questions have been developed by the national CASP collaboration for qualitative methodologies.

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Source:

http://www.phru.nhs.uk/Doc_Links/Qualitative%20Appraisal%20Tool.pdf

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Screening Questions

1. Was there a clear statement of the aims of the research? ** Yes ** No

Consider:

- what the goal of the research was
- why it is important
- its relevance

2. Is a qualitative methodology appropriate? ** Yes ** No

Consider:

- if the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants

Is it worth continuing?

Detailed questions

Appropriate research design

3. Was the research design appropriate to address the aims of the research? Write comments here

Consider:

- if the researcher has justified the research design (e.g. have they discussed how they decided which methods to use?)

Sampling

4. Was the recruitment strategy appropriate to the aims of the research? Write comments here

Consider:

- if the researcher has explained how the participants were selected
- if they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
- if there are any discussions around recruitment (e.g. why some people chose not to take part)

Data collection

5. Were the data collected in a way that addressed the research issue? Write comments here

Consider:

- if the setting for data collection was justified
- if it is clear how data were collected (e.g. focus group, semi-structured interview etc)
- if the researcher has justified the methods chosen
- if the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, did they use a topic guide?)
- if methods were modified during the study. If so, has the researcher explained how and why?
- if the form of data is clear (e.g. tape recordings, video material, notes etc)
- if the researcher has discussed saturation of data

Reflexivity (research partnership relations/recognition of researcher bias)

6. Has the relationship between researcher and participants been adequately considered?

Write comments here

Consider whether it is clear:

- if the researcher critically examined their own role, potential bias and influence during:*
- formulation of research questions*
- data collection, including sample recruitment and choice of location*
- how the researcher responded to events during the study and whether they considered the implications of any changes in the research design*

Ethical Issues

7. Have ethical issues been taken into consideration?

Write comments here

Consider:

- if there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained*
- if the researcher has discussed issues raised by the study (e. g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)*
- if approval has been sought from the ethics committee*

Data Analysis

8. Was the data analysis sufficiently rigorous?

Write comments here

Consider:

- if there is an in-depth description of the analysis process*
- if thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?*
- whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process*
- if sufficient data are presented to support the findings*
- to what extent contradictory data are taken into account*
- whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation*

Findings

9. Is there a clear statement of findings?

Write comments here

Consider:

- if the findings are explicit*
- if there is adequate discussion of the evidence both for and against the researcher's arguments*
- if the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst.)*
- if the findings are discussed in relation to the original research questions*

Value of the research

10. How valuable is the research?

Write comments here

Consider:

- if the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research-based literature?)*
- if they identify new areas where research is necessary*
- if the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used*

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Prompts Approach

Source: M Dixon-Woods, R L Shaw, S Agarwal and J A Smith. The problem of appraising qualitative research *Qual. Saf. Health Care* 2004;13;223-225

Box 1 Prompts for appraising qualitative research

- **Are the research questions clear?**
- **Are the research questions suited to qualitative inquiry?**
- **Are the following clearly described?**
 - sampling
 - data collection
 - analysis
- **Are the following appropriate to the research question?**
 - sampling
 - data collection
 - analysis
- **Are the claims made supported by sufficient evidence?**
- **Are the data, interpretations, and conclusions clearly integrated?**
- **Does the paper make a useful contribution?**

Exhaustive Approach

Source: Quality in Qualitative Evaluation: A framework for assessing research evidence. A Quality Framework. Liz Spencer, Jane Ritchie, Jane Lewis and Lucy Dillon. National Centre for Social Research.

http://www.gsr.gov.uk/downloads/evaluating_policy/a_quality_framework.pdf

The full report is entitled: 'Quality in Qualitative Evaluation: A framework for assessing research evidence', ISBN: 07715 04465 8. August 2003. Government Chief Social Researcher's Office. Crown Copyright 2003

III APPLICATION OF THE FRAMEWORK

The framework is built on a set of **principles** around which to frame and structure **appraisal questions** that might be asked of a piece of work in order to critically assess its quality. In each case, a set of **quality indicators** is listed – features that will help to form a judgement about how well the appraisal question has been addressed. Further questions might also be added depending on the purpose of the research and the approach it uses. It is then for the assessor to judge overall merit, based on the questions and indicators that are most relevant to the evaluation concerned.

Guiding principles

There are four central principles that underpin the content of the framework. All of these are based on themes that are highly recurrent in the literature and in the interviews conducted for the study. They advise that research should be:

- **contributory** in advancing wider knowledge or understanding about policy, practice, theory or a particular substantive field;
- **defensible in design** by providing a research strategy that can address the evaluative questions posed;
- **rigorous in conduct** through the systematic and transparent collection, analysis and interpretation of qualitative data;
- **credible in claim** through offering well-founded and plausible arguments about the significance of the evidence generated.

These principles are presented at a sufficiently high level of abstraction that they would apply to a diversity of qualitative approaches. Indeed, most of them are simply emblems of sound and logical enquiry, whatever its form or purpose.

Appraisal questions

The guiding principles have been used to identify 18 appraisal questions to aid an assessment. The questions are listed in column a) of the framework. Between them, they cover all of the key features and processes involved in qualitative enquiry. They begin with assessment of the **findings**, move through different stages of the research process (**design, sampling, data collection, analysis and reporting**) and end with some general features of research conduct (**reflexivity and neutrality, ethics and auditability**).

It is suggested that the findings of the enquiry are given attention first, even though this is not a logical procedural order. This is because the nature of the evidence presented will help in assessing features of the research process (for example, the quality of the data collected, the visibility and logic of the analytic process). However, if readers prefer to look at research design and conduct before considering the evidence, they will need to return to Qs 6–18 before completing the assessment.

Quality indicators

Beside each question, there is a series of quality indicators (column b) which will help in answering the appraisal question. These provide pointers to the kinds of information needed to judge whether or not the quality feature concerned has been secured. They are not intended to be comprehensive and other indicators might well be added for specific studies. Equally, they are not intended to suggest essential requirements – it is highly unlikely that all these indicators will be present, or even relevant, in any one study.

Many of the quality indicators relate only to methods specified in Section II (i.e. interviews, focus groups, observation and documentary analysis). For most appraisal questions, however, quality indicators that are relevant to other methods could be added.

The need for professional judgement

The assessment of a qualitative inquiry, using this framework, will require careful judgements on the part of the assessor. These, in turn, will require some knowledge of qualitative research and some expertise in using qualitative methods. Judgement will also be needed in deciding the weight to attach to particular indicators in order to assess its 'fitness for purpose' – that is, how well it addresses the objectives for which it was undertaken. For example, in a study carried out to evaluate the implementation of a new scheme, it may well be more important to have a detailed account of how practice has affected outcomes, or an accessibly written report, than to have a thorough literature review.

FRAMEWORK FOR ASSESSING QUALITATIVE EVALUATIONS

Study being appraised:

	a) Appraisal questions	b) Quality indicators (possible features for consideration)	c) Notes on study being appraised
FINDINGS	Q1. How credible are the findings?	<p>Findings/conclusions are supported by data/study evidence (<i>i.e. the reader can see how the researcher arrived at his/her conclusions; the 'building blocks' of analysis and interpretation are evident</i>)</p> <p>Findings/conclusions 'make sense'/have a coherent logic</p> <p>Findings/conclusions are resonant with other knowledge and experience (<i>this might include peer or member review</i>)</p> <p>Use of corroborating evidence to support or refine findings (<i>i.e. other data sources have been used to examine phenomena; other research evidence has been evaluated: see also Q14</i>)</p>	
FINDINGS	Q2. How has knowledge/ understanding been extended by the research?	<p>Literature review (where appropriate) summarising knowledge to date/key issues raised by previous research</p> <p>Aims and design of study set in the context of existing knowledge/understanding; identifies new areas for investigation (<i>for example, in relation to policy/ practice/ substantive theory</i>)</p> <p>Credible/clear discussion of how findings have contributed to knowledge and understanding (<i>e.g. of the policy, programme or theory being reviewed</i>); might be applied to new policy developments, practice or theory</p> <p>Findings presented or conceptualised in a way that offers new insights/alternative ways of thinking</p> <p>Discussion of limitations of evidence and what remains unknown/unclear or what further information/research is needed</p>	
FINDINGS	Q3. How well does the evaluation address its original aims and purpose?	<p>Clear statement of study aims and objectives; reasons for any changes in objectives</p> <p>Findings clearly linked to the purposes of the study – and to the initiative or policy being studied</p> <p>Summary or conclusions directed towards aims of study</p> <p>Discussion of limitations of study in meeting aims (<i>e.g. are there limitations because of restricted access to study settings or participants, gaps in the sample coverage, missed or unresolved areas of questioning; incomplete analysis; time constraints?</i>)</p>	

FINDINGS	Q4. Scope for drawing wider inference – how well is this explained?	<p>Discussion of what can be generalised to wider population from which sample is drawn/case selection has been made</p> <p>Detailed description of the contexts in which the study was conducted to allow applicability to other settings/contextual generalities to be assessed</p> <p>Discussion of how hypotheses/propositions/ findings may relate to wider theory; consideration of rival explanations</p> <p>Evidence supplied to support claims for wider inference (<i>either from study or from corroborating sources</i>)</p> <p>Discussion of limitations on drawing wider inference (<i>e.g. re-examination of sample and any missing constituencies: analysis of restrictions of study settings for drawing wider inference</i>)</p>	
FINDINGS	Q5. How clear is the basis of evaluative appraisal?	<p>Discussion of how assessments of effectiveness/ evaluative judgements have been reached (<i>i.e. whose judgements are they and on what basis have they been reached?</i>)</p> <p>Description of any formalised appraisal criteria used, when generated and how and by whom they have been applied</p> <p>Discussion of the nature and source of any divergence in evaluative appraisals</p> <p>Discussion of any unintended consequences of intervention, their impact and why they arose</p>	
DESIGN	Q6. How defensible is the research design?	<p>Discussion of how overall research strategy was designed to meet aims of study</p> <p>Discussion of rationale for study design</p> <p>Convincing argument for different features of research design (<i>e.g. reasons given for different components or stages of research; purpose of particular methods or data sources, multiple methods, time frames etc.</i>)</p> <p>Use of different features of design/data sources evident in findings presented</p> <p>Discussion of limitations of research design and their implications for the study evidence</p>	

SAMPLE	Q7. How well defended is the sample design/target selection of cases/documents?	<p>Description of study locations/areas and how and why chosen</p> <p>Description of population of interest and how sample selection relates to it (<i>e.g. typical, extreme case, diverse constituencies etc.</i>)</p> <p>Rationale for basis of selection of target sample/ settings/ documents (<i>e.g. characteristics /features of target sample/ settings/ documents, basis for inclusions and exclusions, discussion of sample size/number of cases/setting selected etc.</i>)</p> <p>Discussion of how sample/selections allowed required comparisons to be made</p>	
SAMPLE	Q8. Sample composition/case inclusion – how well is the eventual coverage described?	<p>Detailed profile of achieved sample/case coverage</p> <p>Maximising inclusion (<i>e.g. language matching or translation; specialised recruitment; organised transport for group attendance</i>)</p> <p>Discussion of any missing coverage in achieved samples/cases and implications for study evidence (<i>e.g. through comparison of target and achieved samples, comparison with population etc.</i>)</p> <p>Documentation of reasons for non-participation among sample approached/non-inclusion of selected cases/documents</p> <p>Discussion of access and methods of approach and how these might have affected participation/coverage</p>	
DATA COLLECTION	Q9. How well was the data collection carried out?	<p>Discussion of:</p> <ul style="list-style-type: none"> • who conducted data collection • procedures/documents used for collection/ recording • checks on origin/status/authorship of documents <p>Audio or video recording of interviews/ discussions/ conversations (<i>if not recorded, were justifiable reasons given?</i>)</p> <p>Description of conventions for taking field notes (<i>e.g. to identify what form of observations were required/to distinguish description from researcher commentary/ analysis</i>)</p> <p>Discussion of how fieldwork methods or settings may have influenced data collected</p> <p>Demonstration, through portrayal and use of data, that depth, detail and richness were achieved in collection</p>	

ANALYSIS	Q10. How well has the approach to, and formulation of, the analysis been conveyed?	<p>Description of form of original data (<i>e.g. use of verbatim transcripts, observation or interview notes, documents, etc.</i>)</p> <p>Clear rationale for choice of data management method/ tool/ package</p> <p>Evidence of how descriptive analytic categories, classes, labels etc. have been generated and used (<i>i.e. either through explicit discussion or portrayal in the commentary</i>)</p> <p>Discussion, with examples, of how any constructed analytic concepts/typologies etc. have been devised and applied</p>	
ANALYSIS	Q11. Contexts of data sources – how well are they retained and portrayed?	<p>Description of background or historical developments and social/organisational characteristics of study sites or settings</p> <p>Participants' perspectives/observations placed in personal context (<i>e.g. use of case studies/vignettes/individual profiles, textual extracts annotated with details of contributors</i>)</p> <p>Explanation of origins/history of written documents</p> <p>Use of data management methods that preserve context (<i>i.e. facilitate within case description and analysis</i>)</p>	
ANALYSIS	Q12. How well has diversity of perspective and content been explored?	<p>Discussion of contribution of sample design/case selection in generating diversity</p> <p>Description and illumination of diversity/multiple perspectives/alternative positions in the evidence displayed</p> <p>Evidence of attention to negative cases, outliers or exceptions</p> <p>Typologies/models of variation derived and discussed</p> <p>Examination of origins/influences on opposing or differing positions Identification of patterns of association/linkages with divergent positions/groups</p>	
ANALYSIS	Q13. How well has detail, depth and complexity (i.e. richness) of the data been conveyed?	<p>Use and exploration of contributors' terms, concepts and meanings</p> <p>Unpacking and portrayal of nuance/subtlety/intricacy within data</p> <p>Discussion of explicit and implicit explanations</p> <p>Detection of underlying factors/influences</p> <p>Identification and discussion of patterns of association/conceptual linkages within data</p> <p>Presentation of illuminating textual extracts/observations</p>	

REPORTING	Q14. How clear are the links between data, interpretation and conclusions – i.e. how well can the route to any conclusions be seen?	<p>Clear conceptual links between analytic commentary and presentations of original data (<i>i.e. commentary and cited data relate; there is an analytic context to cited data, not simply repeated description</i>)</p> <p>Discussion of how/why particular interpretation/significance is assigned to specific aspects of data – with illustrative extracts of original data</p> <p>Discussion of how explanations/theories/conclusions were derived – and how they relate to interpretations and content of original data (<i>i.e. how warranted</i>); whether alternative explanations explored</p> <p>Display of negative cases and how they lie outside main proposition/theory/hypothesis etc.; or how proposition etc. revised to include them</p>	
REPORTING	Q15. How clear and coherent is the reporting?	<p>Demonstrates link to aims of study/research questions</p> <p>Provides a narrative/story or clearly constructed thematic account</p> <p>Has structure and signposting that usefully guide reader through the commentary</p> <p>Provides accessible information for intended target audience(s)</p> <p>Key messages highlighted or summarised</p>	
REFLEXIVITY & NEUTRALITY	Q16. How clear are the assumptions/theoretical perspectives / values that have shaped the form and output of the evaluation?	<p>Discussion/evidence of the main assumptions/hypotheses/theoretical ideas on which the evaluation was based and how these affected the form, coverage or output of the evaluation (<i>the assumption here is that no research is undertaken without some underlying assumptions or theoretical ideas</i>)</p> <p>Discussion/evidence of the ideological perspectives/values/philosophies of research team and their impact on the methodological or substantive content of the evaluation (<i>again, may not be explicitly stated</i>)</p> <p>Evidence of openness to new/alternative ways of viewing subject/theories/ assumptions (<i>e.g. discussion of learning/concepts/ constructions that have emerged from the data; refinement/restatement of hypotheses/theories in light of emergent findings; evidence that alternative claims have been examined</i>)</p> <p>Discussion of how error or bias may have arisen in design/data collection/analysis and how addressed, if at all</p> <p>Reflections on the impact of the researcher on the research process</p>	

ETHICS	Q17. What evidence is there of attention to ethical issues?	<p>Evidence of thoughtfulness/sensitivity about research contexts and participants</p> <p>Documentation of how research was presented in study settings/to participants (<i>including, where relevant, any possible consequences of taking part</i>)</p> <p>Documentation of consent procedures and information provided to participants</p> <p>Discussion of confidentiality of data and procedures for protecting</p> <p>Discussion of how anonymity of participants/sources was protected</p> <p>Discussion of any measures to offer information/ advice/ services etc. at end of study (<i>i.e. where participation exposed the need for these</i>)</p> <p>Discussion of potential harm or difficulty through participation, and how avoided</p>	
AUDITABILITY	Q18. How adequately has the research process been documented?	<p>Discussion of strengths and weaknesses of data sources and methods</p> <p>Documentation of changes made to design and reasons; implications for study coverage</p> <p>Documentation and reasons for changes in sample coverage/data collection/analytic approach; implications</p> <p>Reproduction of main study documents (<i>e.g. letters of approach, topic guides, observation templates, data management frameworks etc.</i>)</p>	

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