

# Critiquing Quantitative Research Papers

## STUDENT HANDOUT (1)

Read the paper given to you. As you read, answer the following questions. Be prepared to discuss your critique in our next session.

- 1 Who is the author of the paper?
- 2 Why do you think the author has decided to publish this paper?
- 3 Is there a good, clear description of how the research was carried out? Can you understand how the research was carried out, from the description given?
- 4 Has the author included everything you need to know about how the research was carried out? Do you think any information is missing?
- 5 Can you understand the findings presented in the paper? Has the author(s) explained the results in a clear and succinct way?
- 6 Is there anything in the paper that you don't understand? If so, what do you think the author(s) should have done to make it clearer?
- 7 Are all conclusions backed up by evidence? Has the author jumped to conclusions about anything, or made assumptions that are not backed up by evidence?
- 8 Are all sources acknowledged and referenced properly?
- 9 Is the paper well written? Can you make any suggestions for improvement?
- 10 Is the paper useful to other researchers and/or the general public? Does it tell us something important? If so, what does it tell us?

**STUDENT HANDOUT (2)**

Read the paper given to you. As you read, answer the following questions. Be prepared to discuss your critique in our next session.

- 1 Who is the author of the paper and what are their credentials?
- 2 What is the reason for making the data/research results public?
- 3 Have the research topic and purpose of the research been well justified?
- 4 Has the researcher provided a detailed description of the quantitative methodology? Is it clear why this methodology was chosen and how it is the best way to answer the research question?
- 5 Are the methods well documented?
- 6 Do you think the correct procedures have been followed (this could include, for example, when forming hypotheses, generating samples, conducting experiments, analysing data and reaching conclusions)?\*
- 7 Is it possible to ascertain whether the measurements are consistent (through repetition and retest by other scientists, for example)?\*
- 8 Have all data been reported (including those that weaken or contradict the results presented)?
- 9 Is the source you are looking at the original source of the data (is the study reporting primary or secondary data)?
- 10 Have the data been interpreted correctly?
- 11 Do statistics apply to the point/argument that is being made? Have the figures been manipulated to fit the argument?
- 12 Are visual data presented in a way that enables researchers to draw their own conclusions and verify the assertions that have been made (if relevant)?
- 13 Have the conclusions been investigated, tested and verified by other scientists? If not, would it be possible for others to do so?\*
- 14 Are the assumptions and conclusions valid and backed up by evidence?
- 15 Have generalizations been made that are not based on careful experimentation and analysis?
- 16 Has bias been introduced into any of the information presented?
- 17 Is there a comprehensive literature review, and have all other researchers/arguments been well referenced?
- 18 Have all sources been acknowledged?
- 19 Is the report well written and presented, following the established rules for scientific reports, with all diagrams, charts, figures and graphs well presented, complete and referenced in the text?
- 20 Has the importance/impact of the research been demonstrated?

# Critiquing Qualitative Research Papers

## STUDENT HANDOUT (1)

Read the paper given to you. As you read, answer the following questions. Be prepared to discuss your critique in our next session.

- 1 Who is the author of the paper?
- 2 Why do you think the author has decided to publish this paper?
- 3 Has the author included a relevant background literature review? Is this adequate?
- 4 Is there a good, clear description of how the research was carried out? Can you understand how the research was carried out, from the description given?
- 5 Can you understand the interpretations/findings presented in the paper? Has the author explained the results in a clear and succinct way?
- 6 Is there anything in the paper that you don't understand? If so, what do you think the author should have done to make it clearer?
- 7 Are all interpretations/conclusions backed up by evidence? Has the author jumped to conclusions about anything, or made assumptions that are not backed up by evidence?
- 8 Are all sources acknowledged and referenced properly?
- 9 Is the paper well written? Can you make any suggestions for improvement?
- 10 Is the paper useful to other researchers and/or the general public? Does it tell us something important? If so, what does it tell us?

## STUDENT HANDOUT (2)

Read the paper given to you. As you read, answer the following questions. Be prepared to discuss your critique in our next session.

- 1 Who is the author of the paper and what are their credentials? What reason have they for making sure that their information is available?
- 2 Have the research topic and purpose of the research been well justified?
- 3 Has the researcher provided a detailed description of the qualitative methodology? Is it clear why this methodology was chosen and how it is the best way to answer the research question?
- 4 Has a conceptual or theoretical framework been described? Is it adequate and appropriate?\*
- 5 Has a philosophical/epistemological discussion been included? Is it adequate and appropriate?\*
- 6 Have the research methods been well-described? Is there a description of sampling procedures, the method(s) of data collection and the method(s) of data analysis? Are these methods and descriptions appropriate and adequate?
- 7 Have ethical considerations been taken into account and been well described? Are they adequate and appropriate? For example, has it been made clear that informed consent was obtained? Has the researcher described if and how participants might have chosen not to take part in the research?
- 8 Has the researcher highlighted and acknowledged any bias that might be present in the research process?
- 9 Are the results credible, dependable, authentic and trustworthy?\*
- 10 Are the results rigorous and accurate? Can the researcher demonstrate that saturation or redundancy in data has been achieved (that is, no new results will emerge from the data analysis)?\*
- 11 Has a comprehensive literature review been undertaken (if relevant)? Have all sources been acknowledged and are they well referenced?
- 12 Have the findings been presented well? Have they been placed in context? Have they been related to other work on this research topic?
- 13 Has the importance/impact of the research been demonstrated?