Establishing methodological coherence when using observations, stimulated recall interviews and narrative analysis

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Abstract. Qualitative research is multimodal in focus, often to triangulate data findings and to add rigor, complexity, richness and depth to the data analysis. However, critics often question the trustworthiness of data findings. Pre-observation interviews, videoed observations of clinical sessions followed by stimulated-recall interviews were chosen as the data methods for the eight participants in the study. Narrative analysis was chosen as the analytical strategy as it served as a data management mechanism to manage the variety of data sources and the volume of data in order to produce a coherent whole to facilitate the first level of analysis. It is well documented that videoed observations and stimulated recall interviews are compatible in their pairing as research methods however, the compatibility between these research methods and narrative analysis needed to be established. The researcher transcribed and inductively coded the pre-observation interviews, videoed observations and stimulated recall interviews. Techniques from creative short story writing were used in developing the narratives which underwent several revisions. Verbatim extracts from transcripts were used to further authenticate the narratives and to enhance the internal validity of the analysis. The constructs of trustworthiness were used to allude to the coherence between stimulated recall interviews and narrative analysis. Credibility was achieved through triangulation of the data whereby multiple sources were gathered, i.e. pre-observation interviews, Video recorded observation data and stimulated recall interviews. Transferability was achieved through the narrativising of the data warranted thick descriptions of the empirical data that were presented in the narratives to allude the reader to the context. Dependability of the study was achieved through detailed data production planning and transparency of process. Confirmability was established through triangulation. Triangulation of the data was conducted in an effort to reduce the effect of researcher bias. Although qualitative research is inherently multimodal in focus, the trustworthiness and the coherence of the methods used in a single study needs to be established so that the findings can be dependable and generative. This paper argues that videoed observations, stimulated recall interviews and narrative analysis form a triangulated process to establish methodological coherence and trustworthiness in qualitative research.

Keywords: observations, stimulated recall interviews, narrative analysis, trustworthiness

1 Introduction

Qualitative research, as a set of interpretative activities, privileges no single methodological practice over another. Qualitative research is inherently multimodal in focus (Flick, 2014). The use of multiple methods in the effort to triangulate findings reflects an attempt to secure an in-depth understanding of the phenomenon in question (Guba, 1981). Flick (2014) argues that triangulation is not a tool of validation of the data findings; rather it is an alternative to validation. My understanding of this is that multiple method practices with the use of varied perspectives and empirical materials in a single study adds rigor, complexity, richness and depth to the data analysis. However, positivist researchers often criticize the trustworthiness of qualitative research and the use of multiple methods of data collection. Guba (1981) proposed four criteria that should be considered in the pursuit of a qualitative study. Many researchers in the field of qualitative research have accepted these constructs.
These qualitative research constructs have been tabulated to correspond the positivist (quantitative) terms in Table 1:

Table 1. Qualitative constructs on trustworthiness corresponding to positivist constructs

<table>
<thead>
<tr>
<th>Qualitative construct</th>
<th>Quantitative construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility</td>
<td>Internal validity</td>
</tr>
<tr>
<td>Transferability</td>
<td>External validity/generalizability</td>
</tr>
<tr>
<td>Dependability</td>
<td>Reliability</td>
</tr>
<tr>
<td>Confirmability</td>
<td>Objectivity</td>
</tr>
</tbody>
</table>

Note. Guba (1981)

As this was a PhD study to explore the communication strategies that Speech-Language Therapists have negotiate during clinical engagement, my intention was to go beyond the traditional methods of qualitative research such as semi-structured interviews and observations so that the data collection methods in itself were complex and added methodological depth. The multiple data collection methods used in this study were pre-observation interviews, videoed observations and stimulated recall interviews. Videoed observations and stimulated recall interviews are compatible in their pairing as research methods (Rowe, 2009). However, I needed to explore the compatibility between observations, stimulated recall interviews, and narrative analysis, which formed the final level of data collection of the study and the first level of data analysis.

The research questions that I pose in this paper are as follows:
1. How are observations methodologically coherent to narrative analysis?
2. How are stimulated recall interviews methodologically coherent to narrative analysis?

2 Methodology used

The pre-observation interviews were constructed using guidelines from Kvale (1996). The videoed observations of clinical sessions included the following on the observation schedule: observer information, participant characteristics, client characteristics verbal characteristics of the clinician-client interaction, nonverbal characteristics of the clinician-client interaction and instructional artefacts/stimuli used. The stimulated recall interviews were also constructed using guidelines and probes by Kvale (1996). There were a total of eight participants in the study, who worked across three sites of employment, namely: public hospitals, public schools and private practice in a hospital.

They were invited to participate once gatekeeper permission was obtained from the hospital managers, school principals and private practice managers at the respective sites.

The pre-observation interviews was the initial contact that I had with the participants so as to establish rapport. Videoed observations were carried out in the typical workspaces of the participants within each context. Jacobs (1988) stated that human ethology is one of the distinct traditions of qualitative research. Human ethology involves the detailed observations and descriptions of behaviour in natural settings (Guba, 1995). The term originated in the study of animal behaviour (Guba, 1995). Qualitative ethology was used for exploring the interactions between the practitioners and the clients using the video recorded (observation) data (Bottorff & Varcoe, 1995). This ethological approach involved the study of the participants’ behaviour in their natural environments.

Stimulated recall interviews can be viewed as a subset of introspective research methods, which accesses participants’ reflections on mental processes and has its origins in philosophy and psychology.
(Rowe, 2009). One advantage of this approach is that Stimulated Recall data allows participants to explain their decision-making (Fox-Turnbull, 2009). One limitation to stimulated recall interviews is that recall procedures should occur as soon as possible after the task is completed (Fox-Turnbull, 2009). The stimulated recall interviews were conducted on the same day of the video observations to mitigate against this limitation.

The pre-observation interviews, video observations and the stimulated recall interviews were coded. However, a further layering on the methodological and data analysis process was needed. This gap was filled by the use of narrative analysis in the construction of narratives (stories) using the data from the pre-observation interviews, video observations and the stimulated recall interviews.

The issue at hand was to ensure the trustworthiness of the findings of the study to establish the coherence between the methods used and the initial analysis that was planned.

Fig. 1. The plot development for the narratives

An adaptation of Freytag’s pyramid (1893; cited in Rolfe, Jones & Wallace, 2010) plot development was used to construct the narratives as shown in Figure 1. This began with the setting of the scene and the introduction of the main protagonists in the story, followed by the development of the plot, the climax where the problematics are heightened, the resolution of the problematic and finally the conclusion. The coherence between the narrativisation and the methods used needed to be established by using the constructs provided by Guba (1981) in the following manner:

- Credibility was achieved through triangulation of the data whereby multiple sources were gathered, i.e. pre-observation interviews, video recorded observation data and stimulated recall interviews. In doing so, I was able to achieve a fuller and richer picture in order to develop the narratives. Member checking in its various forms was used to ensure that it was the personal truth of the participants was captured. This was done by synthesising the key points after periods of time during the interviews in order to check that my interpretation of the data was consistent with what the participants were saying and while transcribing the recorded data, I checked for accuracy of the actual words that were said. The interview and
observation transcripts and the narratives were sent to the participants for member-checking. Feedback from these checks were incorporated in the final versions of the narratives.

- Transferability refers to how ‘transferable’ the research findings are to other’s contexts (Firestone, 1993). Although this is not an imperative of qualitative research, the narrativising of the data warranted thick descriptions of the empirical data that were presented in the narratives to allude the reader to the context. The description of the context, participants’ feelings, actions and experiences were expressed in the narratives to allow the reader into the world of the participant to better understand the data.

- To ensure dependability of the research the data production plan has been provided below. This speaks to the replicability of the research methodology. It is important to be as detailed as possible so that future research can build on the current study.

Table 2. Data production plan

<table>
<thead>
<tr>
<th>Data sources</th>
<th>Location</th>
<th>How often will the data be collected?</th>
<th>How will the data be collected?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-observation interviews, video observation and stimulated recall interviews.</td>
<td>Workplace of the participants</td>
<td>The pre-observation interviews, video observations and stimulated recall interviews were done once off, each of approximately 45 minutes to an hour in duration.</td>
<td>The pre-observation interviews were conducted with the use of a self-developed interview schedule which used the literature to guide its development. The video observation data was collected through video recording and was later played back to participants after the video was uploaded to a laptop to facilitate easier viewing during the stimulated recall interviews.</td>
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</table>

- Confirmability was established through triangulation. Triangulation of the data was conducted in an effort to reduce the effect of researcher bias (Shenton, 2004). A key feature for confirmability is the researcher’s awareness and the extent to which the researcher admits own predispositions (Miles & Huberman, 1994). To this effect, I have declared my positionality in conducting this research study. There have been multiple data sources with which triangulation has been achieved.

The research study was given ethical clearance by the Humanities and Social Sciences Research Ethics Committee at the University of KwaZulu-Natal. Informed consent (verbal and written), guarantees of confidentiality, beneficence and non-maleficence were discussed with all participants (Cohen, Manion & Morrison, 2013; Henning, Gravette & van Rensburg, 2005). The participants were provided with detailed information of the purpose, aims, their involvement in the research and what the data would be used for. This information included the recording of data (audio recorders and video recorders) as well as the storage of such data.

The participants’ names were withheld through every stage of the research and they were given pseudonyms as it was responsibility of the researcher to protect their identity. Though not direct participants, the clients that the Speech-Language therapists interacted with during the observation were asked for their permission to be part of the study and to be video and audio recorded. In the case of minors or special populations where their literacy was affected, verbal assent was requested and parents and/or caregivers were asked for permission on their behalf.
Cautionary measures were taken to store the data and other research-related records in a secure manner so as to ensure that nobody other than the researcher had access to this material.

3 Discussion

The interview schedules were transcribed and the observation data was entered onto the observation schedule. The initial coding explored the uniqueness of each participant’s data set in developing each narrative. A concern was the truth-value in the construction of narratives and when using multiple data sources. It was my imperative to remain true to the personal truth of the participants. Therefore, verbatim phrases were used as often as possible and the member checking process became so important.

Though the verbatim quotes were used the construction of the narrative was an interpretive act which means that different levels of interpretation was used for different data sources. For example, the visual data from the videos required some degree of interpretation from the researcher. I verified these interpretations with the participants. These were further contextualised with the tone of voice of the participant and the content of what was said.

A key issue during the construction of the narratives was that of voice. I chose first person narration and I acknowledge both its value and limitations. I found that first person narration allowed the participant’s reality to be expressed better. This choice was more authentic to the participant. I acknowledge that the voice of the researcher was muted. However, the researcher focus was to explore the participants’ experiences, therefore the analysis processes need to be true to this.

4 Conclusion

Although qualitative research is inherently multimodal in focus, the trustworthiness and the coherence of the methods used in a single study needs to be established so that the findings can be dependable and generative. The observations and stimulated recall interviews were highly effective in getting participants to be reflective of practice which aided the narrative development and analysis. This paper argues that videoed observations, stimulated recall interviews and narrative analysis form a triangulated process to establish methodological coherence and trustworthiness in qualitative research.

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5 References


