The impact of short-term training in qualitative research methods delivered to emerging researchers in disability education in India

Richard Rose¹  
Jayanthi Narayan²  
Ratika Malkani³

¹University of Northampton, UK.  
²Email: Narayan.jayanthi@gmail.com  
³Indian Inclusion Research Network, India.  
Email: Ratikamalkani@gmail.com

Abstract
This paper reports the findings from a pre- and post-survey of participants and interviews with a small number of course members. A three-day course of training in qualitative research methods was delivered to a cohort of inexperienced researchers, all of whom were working in the field of special educational needs and disability, in India. The study examines the effectiveness of the training, taking into account the teaching methods used and the structure of the workshop. The findings suggest that emerging researchers prefer a hands-on workshop approach to more traditional lecture delivery of research training. The levels of support provided by tutors and the interaction with practical activities using bespoke resources found favour with participants. Following the training workshop, members expressed greater confidence in their ability to use qualitative research methods and understood the relation of this approach to quantitative studies. Some who completed the course have begun to conduct independent research investigations using the methods taught.

Keywords: Disability, India, Professional development, Qualitative methods, Research competence.

DOI: 10.20448/edu.v10i4.5619

Funding: This study received no specific financial support.

Institutional Review Board Statement: The Ethical Committee of the Manovikas Kendra Rehabilitation and Research Institute, Kolkata, India has granted approval for this study on 27 February 2020.

Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Competing Interests: The authors declare that they have no competing interests.

Authors’ Contributions: Analysed quantitative data, JN; coded and analysed the qualitative data, RR and RM. All authors have read and agreed to the published version of the manuscript.

Contents
1. Introduction .................................................................................................................. 105
2. Methodology .............................................................................................................. 105
3. Discussion/Originality .............................................................................................. 108
4. Conclusion ................................................................................................................ 108
References ..................................................................................................................... 108
Contribution of this paper to the literature

This paper provides insights into the necessary training in qualitative research methods provided to researchers working in the field of disability, which has been dominated by quantitative approaches. Previous reports of research training in India have focused on quantitative methods. The reported study establishes a basis for the development of further research training.

1. Introduction

In India, as in much of the world, changes in educational policy have prioritised a move to ensure that all children, including those with disabilities, receive schooling that is appropriate to their needs (Armstrong, Armstrong, & Barton, 2016; Hardy & Woodcock, 2015). Teachers and professional's responsible for their implementation inevitably face demands from these policies, making it crucial to comprehend their impact to establish an effective system. Such understanding requires careful monitoring of provision and the ability to modify systems and approaches based on secure data that accurately informs both policymakers and practitioners about the effectiveness of changes in procedures. Researchers have a crucial role in providing reliable and bias-free data (Greany & Maxwell, 2017; Mitchell & Sutherland, 2020).

In recent years, the value of using qualitative research methods to gain a greater understanding of the lives of individuals and groups, including those with disabilities, has received increased attention (Beuving & De Vries, 2015; Lester & Nusbaum, 2018; Watharow & Wayland, 2022). Qualitative research methods, which are founded upon interpretivist and constructivist paradigms, aim to provide researchers with an in-depth understanding of the focus of investigation rather than predicting a likely outcome, as is commonly the case with positivist studies (Denzin & Lincoln, 2011). The importance of gaining detailed insights into the lives of individuals with disabilities and those who support or work with them has long been acknowledged, and it is therefore unsurprising that many researchers have favoured the adoption of qualitative approaches to conduct their investigations.

In India, much of the training of new researchers maintains a focus on quantitative research methods (Khaparde, 2002; Raina, 2001). Where researchers have embarked on qualitative studies, they have often found it necessary to find their own route to understanding the complexities surrounding methods and the management of data (Saxena, 2017), or face challenges in having the validity of their methodological approach understood (Singal, 2010). As researchers who have undertaken qualitative investigations in several countries, including India (Malkani, 2021; Rose, Narayan, Matam, & Reddy Sambram, 2021; Rose & Shevlin, 2017) the authors of this paper have been committed to supporting emerging researchers in their development of the skills, knowledge, and understanding necessary to conduct rigorous qualitative research. This has involved the provision of professional development courses with a focus on training inexperienced researchers across India (Rose, Das, Narayan, & Jament, 2021).

The delivery of training in qualitative research requires detailed planning to address complex issues of methods, ethics, and data analysis. The authors of this paper argue that courses with a high degree of hands-on activity, designed to equip course participants with practical experience in working methods and data, are the only effective means of delivering such training. With this intention, a three-day intensive course was delivered to researchers in Kolkata, with limited experience in qualitative methods. The three course tutors who have authored this paper have maintained a focus on the evaluation of the training with the aim of further developing both the course content and the methods of teaching deployed. To understand the effectiveness and shortcomings of the short course, we framed three research questions (below) with this aim in mind.

1.1. Research Questions

- What learning can be achieved through delivery of a short-term workshop on qualitative research methods delivered to inexperienced researchers?
- What are the limitations of learning opportunities in a short-term workshop on qualitative research methods for inexperienced researchers?
- What teaching approaches appear to be most productive in delivering such workshops?

2. Methodology

2.1. Setting

The training programme was organized at the request of Manochetna Institute, a division of Manovikas Kendra, a well-established Non-Government Organisation (NGO) in Kolkata, India, that provides teaching and research in intellectual and developmental disabilities as its focus. Manochetana Institute has a long-standing commitment to the providing training, often drawing upon expertise from universities and training institutes across Kolkata.

As interest in the application of qualitative research has gained momentum, particularly in investigations associated with disabilities in India (Ahmad, 2015; Ghosh, 2016). Manochetna has recognized the need to increase the skills of less experienced researchers working in this area. To fulfill the need for increased competencies, the organization arranged a training programme to be delivered by established researchers with a record of delivering both mixed methods and qualitative research to participants from universities and training institutes from across Kolkata and neighbouring areas. All participants received some prior training in research methods, largely focusing on quantitative methodologies. The training programme was conducted over three days, each lasting six hours, and was intended as an introductory course to be further developed with additional training at a later date. The content of the training programme is shown in Table 1.
Day 1

Content
Understanding the nature of qualitative research – interpretivism and positivism. Recognising the value of mixed methods.

The importance of working ethically

Method 1 – Interviewing and focus groups. Understanding the value and types of interviews commonly used in qualitative research.

Management of transcript data from interviews. Approaches to segmenting and coding interview data

Day 2

Content

Approaches to triangulation. Multi-analyst triangulation using the data from interviews.

Method 2 – Observation. Embedded (Participant) and peripheral observation techniques. Defining the observation foci.

Segmenting and coding observation data.

Multi-methods triangulation

Day 3

Content

Data management – Code reduction

Deriving findings from data – Processes of analysis

Establishing the trustworthiness of data

Using the research literature to discuss findings

Table 1. Three-day training programme content (Elaborated further in the text below).

<table>
<thead>
<tr>
<th>Day</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>Understanding the nature of qualitative research – interpretivism and positivism. Recognising the value of mixed methods.</td>
</tr>
<tr>
<td></td>
<td>The importance of working ethically</td>
</tr>
<tr>
<td></td>
<td>Method 1 – Interviewing and focus groups. Understanding the value and types of interviews commonly used in qualitative research.</td>
</tr>
<tr>
<td></td>
<td>Management of transcript data from interviews. Approaches to segmenting and coding interview data</td>
</tr>
<tr>
<td>Day 2</td>
<td>Approaches to triangulation. Multi-analyst triangulation using the data from interviews.</td>
</tr>
<tr>
<td></td>
<td>Method 2 – Observation. Embedded (Participant) and peripheral observation techniques. Defining the observation foci.</td>
</tr>
<tr>
<td></td>
<td>Segmenting and coding observation data.</td>
</tr>
<tr>
<td></td>
<td>Multi-methods triangulation</td>
</tr>
<tr>
<td>Day 3</td>
<td>Data management – Code reduction</td>
</tr>
<tr>
<td></td>
<td>Deriving findings from data – Processes of analysis</td>
</tr>
<tr>
<td></td>
<td>Establishing the trustworthiness of data</td>
</tr>
<tr>
<td></td>
<td>Using the research literature to discuss findings</td>
</tr>
</tbody>
</table>

2.2. Participants

The host organisation informed potential participants about the programme through a range of media. The eligibility criteria stated that applicants must engage in research, and those who registered would be part of the training’s effectiveness study. This was seen as important, as the course organisers intend to deliver further programmes of this nature in the future. A total of 33 participants were initially enrolled in the programme. As three of them did not complete the full programme, the study as reported here included 30 participants (female 23 male 7). The profile of course members included those enrolled in PhD programmes (7), doing master-level programmes with the requirement for a research-based dissertation (15), teaching faculty (2), PhD-completed (1), special educators (3), psychologists (1), and an ayurvedic doctor (1). The scholars were from four different universities.

Ethical Considerations: The participants were informed that data obtained from the workshop programme would be analysed with the intention of further developing training and writing a research paper focused on findings about the effectiveness of the programme. Participants were assured of anonymity, and informed that the data would not be used for any other purpose, ensuring confidentiality. We thus obtained the participants’ consent to use the data for the publication. The host institution granted permission for their name to appear in this paper.

2.3. Programme Design and Content

The programme was intentionally planned to be a face-to-face or offline programme, as it included many hands-on activities. The content included the basics of qualitative research, data collection through interviews and focus groups, observation and use of other visuals (photographs or videos), transcription of data, segmenting of data based on research questions, data coding and combining codes, and interpreting the findings to answer research questions. Examples of fictitious transcribed interviews, observations, and other relevant data were prepared in advance by the tutors and given to participants to work with, to provide a direct and active experience of doing data analysis and interpreting findings. The content was transacted with the participants through lectures, discussions, simulations of interviews and observations, and working with data, enabling a hands-on experience for all participants and individual and group work carried out and later presented by the participants, with the tutors providing guidance whenever needed. We taught all sessions in English, but encouraged workshop members to use local language in practical sessions where this made the situation more comfortable for them.

2.4. Instruments

A pre- and post-test questionnaire with both closed and open-ended questions was designed for the study. A pretest was administered to identify the baseline knowledge of qualitative research among the participants, and post-test was administered to establish the knowledge gained by them upon completing the course. Closed-ended content was structured as 30 multiple-choice questions. The open-ended questions in the pre-test sought to understand the expectations of the participants from the programme, and the post-test had questions on their learning, what more they wished to learn, and the overall conduct of the training programme. Interviews were conducted with a small sample of course participants (N=5) to obtain their perspectives on the quality of learning gained through the training programme and insights into the course delivery mode.

2.5. Procedure

On the first day, as an initial step, the pre-test was carried out, and then the participants were given a brief ice-breaking exercise to familiarize themselves with others and the tutors, who were seen as important as they were from different institutions. Each session throughout the three days had an initial presentation with power point support provided by a tutor, followed by hands-on exercises relevant to the session. For example, participants had opportunities to take part in and manage a focus group. The course members were randomly grouped for the group activities, followed by their presentation and discussion of what had been learned. The tutors supported each group whenever they needed clarification. We administered the post-test on the third day after the last session. The data was analysed, providing results as presented below.

2.6. Findings

We performed a paired sample t test to determine the impact of the training on the participants’ gained knowledge. Analysis of pre- and post-test scores on the closed-ended questions revealed that the participants had
significant gains, as revealed in the post-test data. The test's maximum possible score was 25. The analysis of the post-test (Mean 13.67; SD 4.38) and the post-test scores (Mean 18.73; SD 5.63) revealed a mean gain of 5.06; t (29) = 6.53, and p = .01 thus showing that the participants had made significant gains in knowledge of qualitative research methods through the three-day interactive training programme. This finding concurs with that of Bluestone et al. (2013) who, after conducting an integrative literature review on effective in-service training design and delivery that included analysing 37 systematic reviews and 32 Randomised Control Trials, found that didactic techniques and providing printed materials alone clustered in the range of no to low effects, whereas all interactive programmes exhibited mostly moderate to high beneficial effects.

We segmented the open-ended questions directly from the research questions. This enabled the qualitative data obtained through the pre- and post-test data to be coded as an initial stage of analysis.

The interviews conducted with workshop members were useful in providing clear insights into what they perceived to be the benefits of this form of training in research methods.

When considering the first question, “What learning can be achieved through delivery of a short-term workshop on qualitative research methods delivered to inexperienced researchers?” The interview data revealed that personal contact with tutors was seen as bringing major benefits such as clarifying concepts, checking understanding, and offering positive feedback on the learning tasks. One interviewee commented:

“This workshop, the in-person workshop, I found very useful because I was mentored: wherever I got stuck, I was mentored.”

The practical nature of the teaching approach was another advantage. Referring to a previous experience with research methods training, a participant commented that:

“It (previous research training) was not really clear when we had the online session, but the practical session was really amazing.”

Participants emphasize the importance of gaining confidence through action. Many had previously gained some understanding of quantitative research methods, and these were still seen as important, but following the three-day workshop, some perceived a change of emphasis amongst the group and enthusiasm for adopting more qualitative approaches in their work, as recorded by this interviewee:

“In fact, after coming out of the workshop, we were discussing among all the participants how they all wanted to do their future research, focusing basically on qualitative analysis. That was a big change in the approach of the researchers; first, they only wanted to do quantitative. But now, after the workshop, the whole mindset was a No, I want to do qualitative research now.”

It is, of course, important to recognise that there are likely to be flaws in any professional development delivery approach. Asking the question, “What are the limitations of learning opportunities in a short-term workshop on qualitative research methods delivered to inexperienced researchers?” was particularly important for the course tutors, who intend to build further upon research workshop delivery in India.

Course participants identified the intensity of the course over a relatively short period of time as an issue. While they appreciated the teaching methods, the short delivery time was seen as a challenge.

“We just felt the workshop was very intense and engaging, and after the workshop was over, we were like, Oh, and we have nothing to do now. We missed the workshop after that, so we felt like, yeah, it would have been like, instead of three days, if it happened like over five days, we would have been given lots more work that we could have done, and the practice would have been more.”

The course tutors were also aware of this difficulty, and at times felt under pressure when attempting to cover the course content in a limited amount of time. However, the practicalities of participants being able to obtain additional time away from home, their places of employment or study, and to meet the costs of accommodation and other expenses may well prohibit expansion of the course over a longer period. In the future, we might consider a more blended learning approach. The third question, “What teaching approaches appear to be most productive in delivering such workshops?” was used to push the participants for more explicit details of whether the intended supportive nature of the course was achieved. The most challenging part of the course identified by course members was that involved in data coding, reduction, and analysis. There was general agreement that this would be hard to learn through a lecture format or a reference book. Practical engagement with the data provided on the course, including interview and focus group transcripts and completed observation schedules, was an approach that was particularly favoured.

“The hands-on method of teaching helped us understand better; especially coding that whole thing of identifying important information, narrowing it down, getting rid of the additional, and then you’re coming to a theme and all that. So, when we did it hands-on in small groups, it was easier for us.”

From the point of view of the course providers, this was reassuring, as at the commencement of the course there was some apparent apprehension amongst participants when the intended practical nature of the three days was first explained. One interviewee shared their anxieties and the strategies they used to overcome them.

“I know when we start doing the hands-on work we will have our doubts, but we are fortunate to have mentors. We will receive guidance if we write to them or communicate with them, but we now possess the courage to take the next step. Yeah, definitely.”

Another commented that:

“I feel like the tutors really helped us with the hands-on training, which was brilliant, like, in three days. The theoretical part and the practical part, covering both of them is a brilliant task. After the workshop, we were enlightened, and we were highly research-motivated.”

Tutors agreed with course members that they could remain in contact after the workshop to discuss how their studies were progressing and seek advice if needed. Participants expressed their appreciation for this. Since the workshop’s completion, some have engaged further with the course tutors to discuss specific methodological aspects of their work. A few participants have recently commenced new research investigations, incorporating learning from the course into their proposals and advancing it through ethics committees.
3. Discussion/Originality

It was agreed by course members that in-person training programmes result in better learning in comparison to online or hybrid modes in areas that require hands-on experience. It is important to consider this finding in terms of both other training situations, and the context being delivered. Burrola-Mendez, Bonilla-Excobar, Goldberg, and Pearlman (2019) after studying the training for wheelchair service providers that involved in-person and hybrid training, found that both learning methodologies had a statistically significant effect on increasing wheelchair service knowledge, with overall high levels of satisfaction. However, compared to their previous experiences with hybrid methodology training, the in-person group in this study reported larger overall effects. In particular, the ability to experiment with methodologies such as interviewing and conducting focus groups while under the direct scrutiny of a tutor playing the role of critical friend was seen as beneficial. In some instances, course participants were able to express their own learning concerns or seek further clarification through individual approaches made to course tutors.

Other writers, Poon (2013) and Bouilleres, Le, McDonald, Nkhoa, and Jandug-Montera (2020) have rightly emphasised the importance of hybrid methods of learning for busy professionals who may not have the time to either travel for training or take extended periods of time away from their work. It was indeed apparent that some of the participants in the reported research methods training had experienced difficulty obtaining the necessary time to join the course. Saltan (2017) in acknowledging some of the advantages of hybrid learning approaches, emphasised the difficulties associated with the practical application of learning that are more easily addressed through face-to-face, hands-on approaches, a factor that was emphasised by the cohort reported in this paper. However, given the pressure of time on this course, and with concern for the welfare of both students and tutors, discussions regarding further modes of course delivery have commenced.

Several writers Berger and Lorenz (2016); Leko (2014) and Pugach (2001) have acknowledged the value of qualitative research for those working in the field of disability and inclusive education. Practitioners, such as teachers or therapists, who may wish to conduct investigations to analyse and improve their practice, are likely to be working with small samples. In such instances, the use of quantitative measures is sometimes seen as unlikely to provide reliable results (Lakens, 2022; McCarthy, Whittaker, Boyle, & Eyal, 2017) and may also elicit data that feels impersonal and fail to give insights into the lives of individuals or groups being investigated. Some researchers, Houts, Edwards, Wirth, and Deal (2016) rightly propose that the development of some quantitative techniques, such as the use of Rasch Analysis, can have benefits even when applied to samples of limited size, but acknowledge that many quantitative measures deployed with such samples are limited. Cox (2012) recognised that many novice researchers come from a professional background and have the experience and opportunity to conduct investigations that could influence the development of practice. However, she suggested that the dominance of quantitative methods often acts as a constraint on those practitioners who might otherwise engage with research. She further argues that while policymakers appear to depend upon the numerical data more commonly associated with quantitative data when making a case for change or the implementation of new policies, the importance of understanding the specific needs of groups, such as those with disabilities, emphasises the strength of qualitative approaches. While both she and the authors of this paper readily acknowledge the value of quantitative studies and recognise that in some instances a mixed-methods approach may have greater currency, it is suggested that qualitative research is more likely to reveal the lived experiences of those for whom policymakers see the need to bring about change. This was certainly a view endorsed by those who attended the training reported in this article.

Cook and Cook (2016) stress the importance of recognising qualitative research as an umbrella term that incorporates many approaches to investigation. One of the greatest advantages of qualitative research that they perceive is the ability to provide in-depth descriptions of the phenomena being investigated. These authors emphasise that qualitative research is not an alternative to other methodologies but needs to be applied in situations that benefit from the descriptive detail needed to aid understanding of a phenomenon. It is important to recognise that qualitative studies might, as in the case of the work reported in this paper, identify the effective enes of instruction but that they cannot eliminate the fact that other methods of delivery might be equally effective. Only experimental research can determine these factors. However, the ethical challenges of conducting research in these circumstances may present problems with respect to the Intentions of tutors to deliver training in a manner that is equitable and does not put a group at a disadvantage.

4. Conclusion

Qualitative research approaches can generally provide a greater in-depth understanding of the lives of individuals than is possible using quantitative methods. However, both approaches have an important role to play in achieving greater understanding of the causes of marginalization and the challenges faced by those who work towards a more equitable and inclusive society. In many instances, a mixed-methods approach that draws upon both qualitative and quantitative methods will be appropriate. Training in quantitative methods continues to provide the dominant discourse in many universities in India, though it is possible to detect a shift of emphasis in recognition of the advantages that qualitative approaches bring.

The experiences of emerging researchers discussed in this paper suggest that where training in qualitative research methods is to be delivered, this is most likely to achieve positive learning outcomes when taught through practical, hands-on sessions. Consideration should be given to the time required for effective course delivery, particularly when addressing complex issues involving the management, and analysis of qualitative data. As a result of this survey, the authors of this paper will consider which aspects of the course may be delivered online, while continuing to ensure practical experiences for inexperienced researchers through workshop activities. The lessons learned by the course tutors in the delivery of these workshops will certainly influence the structure of future research training to be delivered in India.

References

