## **Demystifying Research 9**

## Working with Qualitative Data I: Analysis of Questionnaire Responses

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Thought Seed:

Imagine that you are in an old-fashioned provision shop where what you buy is wrapped up in paper bags. You have bought a few dhals, or lentils/ pulses, (if you wish to use the 'English' name) and along with it spices and seasonings like pepper, mustard, and red chillies. You carry all this by bus, or auto, on bad roads, come home and find that a few of these paper packets have broken and you have a mixture of all that you bought inside your bag. What will you do? Will you just take one handful of all that you bought and start cooking? Will you start sifting by picking out all the mustard and pepper? Will you separate the pulses/dhals/lentils first, or use a sieve to retain the big pieces, so that the seasonings are in one place, and the dhals in another. What will be the first thing that you would want to do and why? Will you have a rationale? What will happen if you just take the mixture and start cooking? What would you need first and why? What is the rationale for the separation exercise, if any? What would it depend on? Which of these would be a good option and why? What steps will you decide to take to avoid such mishaps in future and why? What suggestions will you probably get from your friends if you tell them what had happened to your groceries? Which friend would you reach out to and why? Have you seen such problems in your life earlier or have your friends, and what did you/your friend do? Will you be perturbed about the mixture or will you attack the issue at

hand calmly? Why/why not? How do you think the shopkeeper handles this issue on a daily basis?

Think deeply.



For a few months now, we have been writing about the differences between doing quantitative and qualitative research and how and why in the field of English Language Education, particularly for small or in depth research studies, it is better to stay with qualitative research. There are many ways in which research in the qualitative paradigm can be carried out and between the host of books on research methodology and all the material (good or bad) that is now freely available on the internet, that is a glut of information on this subject. However, neither the books nor the downloadable material actually teaches us what we really need to know about doing research, whether qualitative or quantitative. We all know that to carry out qualitative research, we can administer

questionnaires, conduct interviews, or better still, observe, document and analyse classroom teaching/learning. It is also possible to do an in depth analysis of student writing samples, whether written in class, or at home, or under examination conditions. If we have the patience and means to record and transcribe data we could choose to work with speech samples of students either as part of pair or group work, or individual presentations/talks. These analyses of student speech/writing could be taken up with samples of the whole class, or as individual case studies depending on the number of students in our class, our research questions and the volume of data we are willing to document and analyse.

Textbooks or courses on research methodology rarely go beyond the presentation and listing of such possibilities. If we happen to strike gold on the internet, we may actually hit on a few possible generic questionnaires, which anyway need to be modified based on our own research questions and areas of interest. In the qualitative paradigm it would be better if we have an open-ended-guided questionnaire and not one which lends itself to yes/ no answers. This format, of either multiple choice, or yes/ no/maybe (also called as fixed response type) is better suited to quantitative research where we can count the number of responses and present them. One problem with this is that we will never know whether the respondents guessed the answer, or decided to just answer 'yes' or 'no' on a whim. Such question types are routinely used in many studies as a tool for data collection without such an awareness. One of the doctoral students discovered that the students had circled answers only because they did not want to leave them unanswered. A chance discussion over coffee revealed this to her. If the study had been in the

quantitative paradigm, such a 'chance finding' would never have happened; the responses would have been collated and findings presented, without a clue about the reasons for the choices made by the students. One study is discussed in Deepa (2022a) where an objective type question is modified into a rationalised discourse completion questionnaire. This is why it is important to always have alternative sources of evidence in research, much more so in the qualitative paradigm, where we do not have built in checks and balances in terms of statistical levels of significance. Even in such a paradigm, unless the questionnaire is meant to only gather background knowledge, (age, medium of instruction, study and leisure reading habits etc) it is always safer to check that the questionnaire is clearly understood and students know what they are supposed to do.

When the research question focuses on some aspect of the workings of the human mind, where probing into ways of making meaning is the focus, (nature of reading comprehension, nature of writing processes, manner of planning for speaking etc) it is crucial that we obtain evidence from various sources and then triangulate them.

In qualitative research, it is important to ask openended questions that can lend themselves to a range of answers so that we can glean some insights into what goes on in the mind of the student. Our questions have to be carefully worded, with some idea of the nature of responses we hope to get. At the same time getting a peep into the mind of the student/teacher is not easy. A mere collation of the various answers just presented in the form of a table will take us nowhere. This collation will be like taking a handful out of the mixed-bag of broken grocery

packets and cooking it without any attempt at sifting. It will yield bland or useless results with no taste. It is important to perceive patterns in the answers and then explore various possibilities in order to present them meaningfully as part of data analysis and interpretation. This is like sifting and separating the groceries in the bag with a rationale- all the seasonings like mustard, zeera are sifted out, leaving the slightly bigger stuff like the lentils up on the sieve. This is the most crucial yet toughest aspect of qualitative research; the rationale for separation will act as the sieve and leave us with usable data. The rationale will also yield the patterns that ought to be identified, described, and then written up. Often we look at other publications in the same area for such patterns and the rationale and later decide to use/ modify/reject it in our own study. Sometimes this itself will become the theoretical framework of the study. We have to be open minded in terms of the responses we might get and be prepared for 'surprises' in terms of unexpected answers. In quantitative research, very often we may be encouraged to 'ignore' or not count the responses that do not fit into what we hoped to find. This is not the case in qualitative research. Here, since we are usually exploring, we need to take the range of responses and try to incorporate them into our findings. Presenting and trying to account for the variations is what gives qualitative research its unique character. As an illustration we will briefly examine some of the questions we posed to teachers and students and also try to identify a few patterns in the responses in a paper published in a back issue of this journal.

The two of us, as part of an ongoing research project had sent out a questionnaire on the notion of language potentiality to teachers and students

to find out what they felt about this construal. We had a mixture of questions that had to be answered with a yes/ no/maybe, backed up by open ended, short answer questions. The purpose of our questionnaire was to obtain some feedback on a two hour workshop on language potentiality. The 'yes/no/maybe' questions were initial exploratory ones: the first one was a simple, "Had you heard of this concept of language potentiality prior to this talk?" We went on to ask: "Do you think this is applicable in your everyday life and in your professional life?" but followed it up with a short answer "If yes, can you explain why, where and how?". We also had a very general, "Can you write down 3 things that you liked about this concept?" to help us get an idea of what they liked about the workshop.

The question on where, why and how language potentiality would be applicable in everyday life, gave us a range of answers, starting from an echoing of daily life to college, workplace, professional space etc. Student A stated that she "wishes to become a diplomat and therefore this idea would be useful". Student S said that it "would be helpful for paper presentations" while Student P said that it "would open new possibilities and opportunities." Student K made a general, but very widely applicable statement when she said that the notion of language potentiality would "make (her) a better person and the world a better place".

We, that is, you the reader, and the two of us as the authors, need to do a quick critical examination of what has been presented in the paragraph above: the actual quotations alone have been italicised. This analysis that has been written up, reads as a part of a paragraph in an article but the data presented was actually extracted from more than 80 responses to our google form questionnaire to corroborate our observation of a pattern. It would have been impossible to scribe all 80 of them and would become a data-dump rather than analyses with evidence. The patterns we perceive must be reported as our findings from the analyses and supported by a few statements from the data as evidence. In the actual article there would be many more quotations from responses, and more patterns presented. What we have presented in the paragraph above is only an illustrative sample. In the qualitative paradigm it would be impossible to discuss every single response; at the same time, it would be foolish and a waste of good data to reduce it to similar statements, and collect them under common adjectival umbrellas. Instead, what is needed is to categorise and label, but capturing as much of the variety as possible. We do not begin with fixed categories in our mind but let them emerge from the data as we perceive patterns as we read from the received data. Once we get a sense of the range of responses, we then select a few exemplar responses that are often repeated and discuss them as examples and also pick the 'stand out' responses, and put them into the article with relevant discussion and rationalisation, so that the ideas get showcased. This will serve as evidence for the claims we make as discovered through our study or research. In other words, data and the perceived patterns discovered are interwoven as part of our research 'story'. We then decide/alter which one should go first, which one last, etc. This decision is dependent on the effect we wish to make on the reader, if any.

In a similar manner, the responses to the other

questions can be sifted, categorised and discussed. The end result is that we are able to take our reader where we want them to go; our data will speak in such a way that interpretations are perceived as valid and our conclusions seen as tenable.

We collect more than enough data to look for patterns and let the data speak to us and the patterns emerge from it. Many times it may feel like we are wasting data, but for the purposes of an article and what we want to focus on, we use data as evidence for showcasing our findings from the whole study. Good researchers reuse data to showcase different findings and write up some more articles from the data bits that were not used up earlier. So essentially, it is a data bank that we might actually have. Data analysis in qualitative research is all about sifting, categorising, labelling and foregrounding, and not just about collating all that is available and then merely presenting it as chunks of data for the reader to sift and analyse. In many papers that we reject, this is one of the major reasons. Data must not be dumped but carefully interwoven with our research story as evidence for the claims that we make. Research articles are stories that speak of our research journey, not a supermarket shelf. In other columns, we will look at data from sources like written samples, spoken interaction, interviews etc.

## **Works Cited**

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