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# Learning to Do Qualitative Data Analysis: An Observational Study of Doctoral Work

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Using examples from written assignments and supervisory dialogues, the authors report a longitudinal observational case study of a doctoral research project, focusing on the teaching and learning of qualitative data analysis on a project that involved coding and analysis of nursing talk. Written drafts contain concrete exemplars illustrating the problems and solutions discussed in supervisions. Early problems include the difficulty of knowing where to start with coding, ambiguities in the definition of codes, inaccurate reporting and recording of data, failure to distinguish researcher and actor categories, and overinterpretation of evidence. Solutions to these problems required their accurate identification, communication of practical solutions, and care in the interactional management of delivery and receipt of feedback. This detailed analysis informs readers of sources of validity, rigor, and, eventually, creativity in carrying out a social research project. It also assists in explicating an apprenticeship model for the learning of research skills.

**Keywords:** *research methods; qualitative data analysis; pedagogy; PhD supervision; social research*

CS: you're not very clear about coding, are you?

SL: no no no

CS: no that's what I thought.

—Supervision session, Year 1

You have some good/interesting data here. . . . Many of your comments are insightful.

—Written comment, Year 1

I think you need to . . . separate actors' meanings from your interpretation more.

—Written comment, Year 1

The data and the interpretation fit together really well. In general, I feel the clarity and sophistication of your thought and analysis is improving all the time.

—Written comment, Year 5

The analysis of data is meticulous and thorough.

—Examiner's report

The excerpts above record the gradual acquisition of skills in doing qualitative data analysis over a period of 6 years (1997-2002) in which we participated as supervisor (CS) and PhD student (SL). The research involved was a qualitative study of palliative nursing care using data derived from participant observation in three settings, including field notes and audio recordings (Li, 2002, 2004, 2005) in which the key organizing concept of symbiotic niceness was developed. We made audio recordings of supervisions and kept SL's original drafts of dissertation chapters with written comments made by CS on these, e-mails, and some other records of the progress of the project. Our project involved the use of these to report on various aspects of the supervisory and research process. In the present article, we focus on communication about the development of skills in qualitative data analysis. We hope that this will contribute to an understanding of how such skills might be taught and learned. Initially, however, we contextualize the present study in the general literature on teaching

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and learning data analysis and on social science PhD supervision.

## Teaching and Learning Data Analysis

Many textbooks on social research are available, some of which offer advice on qualitative data analysis (for example, Coffey & Atkinson, 1996; Gibbs, 2002; Miles & Huberman, 1994). There is, however, a commonly held view that research methods and data analysis are at least in part craft skills, best learned through practical engagement (Becker, 1998; Mills, 1959; Seale, 1999; van Manen, 2006). Critical of "training" courses for PhD students that suggest that qualitative method can be taught as a set of procedures to be followed, Hammersley (2004) has argued that a craft model similar to that of an apprenticeship is more suitable. The argument against teaching methods, as if research practice were simply a matter of applying procedures, is based on the observation that

[Research] situations are unique and involve contingent processes of interaction; so that there is always the possibility that what worked on one occasion may not suffice on others. (p. 551)

Although he accepts the value of simulated research experience during generic "methods" courses, Hammersley (2004) has argued that learning qualitative method is often best achieved through interaction with a more experienced practitioner giving feedback on the attempted performance of research skills. Unlike group simulations, such feedback can be closely tailored to the particularities of the research problem at hand, addressing features of a real-life situation that might be impossible to predict and plan into a simulation. If coupled with an appropriate concern for reflexivity and creativity, which Hammersley discussed under the headings of the professional and the bricolage models, this approach to the teaching and learning of research skills can be applied appropriately to learning qualitative data analysis in the context of PhD supervision.

## Studies of PhD Supervision

A number of studies of the social science PhD have involved attempts to characterize the teaching and learning that can take place, but few have involved direct observation of the pedagogic process, being

based instead on interviewing students or their supervisors (for example, Delamont, Atkinson, & Parry, 2000). An exception to this is Wisker, Robinson, Trafford, Creighton, and Warnes (2003), who reported a study that followed a cohort of Israeli PhD students by analyzing transcripts of supervisory sessions to describe broad types of teaching behavior. Referring to this study and extensive personal experience as a supervisor, Wisker (2005) is helpful in advising on the nature of effective PhD supervisory dialogue. The skills of the supervisor, for example, include the ability to "draw out questions, engage in debates, set off trails of thoughts, help focus work" (p. 122). In addition, the supervisor must "guide, confront, prescribe, elicit, inform, clarify, move the student on, summarize, support" (p. 124). Through these means, supervision provides a forum for both supervisor and the student to engage in "first-hand" intellectual activity in the research process (Wisker et al., 2003, p. 95) in which "deep learning" (p. 176) is attained. This, Wisker et al. suggested, assists students in moving from a descriptive style of learning (gathering, retaining, and regurgitating facts) to an analytic and problem-solving style. However, the role of these teaching behaviors in communicating particular research skills (such as data analysis) is not the focus of Wisker's analysis.

In general, it is evident from research that supervisors require effective interpersonal skills. This is particularly evident from studies that report breakdowns or inadequacies in supervisory experiences (e.g., Acker, Hill, & Black, 1994; Blanton, 1983; Salmon, 1992). The tendency of such studies, however, is to focus on inadequacies of supervisors (such as lack of tact or failures of supervisory effort). Our analysis of the interactional skills of participants in supervisory sessions (Li & Seale, in press) has focused attention on the contribution also made by students' skills (specifically in relation to managing praise and criticism). It is these interactional skills that make it possible to communicate effectively about other matters, including the development of data analysis skills.

Wisker et al. (2003) have noted that supervisions involve different types of interaction, not being limited to face-to-face dialogues. Crucially, written comments on written work are a core part of the pedagogic process. Few empirical studies of supervisory process have included this dimension, an exception being Hyatt (2005), who analyzed written comments on master's degree assignments. Hyatt found that the most frequent type of comments concerned the content of the assignments (for example, the degree to which relevant

literature had been reviewed). Comments on writing style and suggestions for future development of the students' subject knowledge were next most frequent. Hyatt concluded that tutors need to pay more attention to giving positive feedback, to avoid presenting advice as always imperative, and to ensure that students are likely to share their understanding of common terms such as structure, analysis, or clarity. Although this exemplary study provides evidence-based recommendations relevant to ensuring effective pedagogic communication through written comments, its relevance for research-based studies and the teaching of social research skills at the PhD level is more limited. This is because few of the assignments in Hyatt's sample involved research-based exercises, so comments on research methods were rare and those on skills of data analysis rarer still. The study we report here is focused specifically on communications relating to data analysis skills.

## Method

We report from a broader project that involves a longitudinal case study documenting a student's PhD journey in a U.K. university sociology department between 1997 and 2002. The participants were the authors of this article: SL (PhD student) and CS (PhD supervisor). The case study design helped us investigate the process through which learning about how to do data analysis took place over time in PhD supervisions within its real-life context (Yin, 1989). We used multiple sources of evidence, tracing the learning journey through the analysis of critical stages that shaped the student's learning. In this article, we have analyzed 40 drafts of written work, which include written comments from the supervisor and 17 transcriptions of audiotaped supervisory sessions recorded at different stages of the PhD journey. To these we have applied the tools of qualitative thematic analysis (Tonkiss, 2004), conversation analysis (CA) (Hutchby & Wooffitt, 1998), and general interaction analysis involving counting (Seale, 2004a). Supervisions usually lasted 2 hours, frequently involving a discussion of written work or issues arising in fieldwork.

We have also included additional materials analyzed in the course of this project, some of which are referred to in the present article:

- 17 written records of the main contents of supervisory sessions made by the supervisor and agreed by the student (supervision reports),
- Five annual progress reports written by both parties,

- 18 e-mails containing requests or responses to clarify issues arising from SL's written work or fieldwork, and
- a research diary kept by the student documenting her perception and interpretation of events in the PhD journey.

We entered all the data into the NVivo qualitative data management software program. We read the data separately (SL and CS) until an agreed definition of themes emerged. One theme was that of data analysis, so bits of data relating to this were marked with codes and retrieved in an NVIVO search for further inspection and analysis.

Our analysis of this material draws on several approaches, principles, and procedures described in Seale (1999, 2004b). First, we did qualitative thematic analysis, which itself reflected an underlying constant comparative method whereby like materials are placed with like and new categories created for cases that deviate significantly from existing categories. This involves an active consideration of negative instances or deviant cases so that the emergent categories account for maximum variety in the original material under analysis. In addition, we drew on CA for our examination of selected segments of transcribed talk. We used dots between words to indicate passages that are deleted (. . .); we underlined words where we now want to emphasize certain passages. In transcripts of talk, a number within parentheses (e.g., (0.2)) indicates the length in seconds of a pause, and empty parentheses ( ) indicates inaudible speech. Two right-sided square brackets (]) on top of each other indicates an overlap of speech between two speakers.

## Ethical Considerations

We consulted SL's local ethical research committee. Formal ethical approval was not required as the data belonged to the principal investigator (SL) and were the product of earlier interactions between the authors of this article. Where data extracts refer to people and places other than the authors, details have been changed to preserve anonymity. The original investigation, from which these latter data extracts were taken, was subject to full ethical scrutiny and approval of relevant ethical committees. Details can be found in SL's publications from the PhD project (Li, 2002, 2004, 2005).

## Findings

We begin by outlining briefly four distinct and common problems that were encountered in SL's attempts at data analysis. This is followed by a further brief account of five commonly suggested strategies from CS for improving SL's data analysis. Finally, we present a more detailed analysis of selected examples of interaction concerning attempts at delivering and using advice about data analysis. These include advice designed to help reduce the size of each task faced by SL, to create greater consistency in assigning meaning to qualitative data, to separate SL's interpretations from the interpretations of the people she was studying, and to restrain interpretations that went beyond what the data supported.

### Four Problems in Doing Data Analysis

Four broad types of problem relating to data analysis were identified in the research materials. These were not knowing where to begin (68 instances), ambiguous coding categories (31 instances), reporting or recording problems (66 instances) and inaccurate or overinterpretation (266 instances). These will be described initially with examples taken from CS's comments or discussions with SL to demonstrate what is involved. In later sections of the article, we will show examples of SL's work that led to these judgments as well as discussing responses and suggested solutions to difficulties.

The first problem involved not knowing where to begin analyzing a large amount of material or how to relate research questions to data. For example, at an early stage it became clear that the practicalities of coding (categorizing data extracts according to how they relate to emerging or existing analytic themes) were mysterious for SL:

CS: I don't think you know (0.4) what (0.3) coding means (0.7) do you?

SL: erm (0.3) not not really not very clear not very clear

CS: well it's the identification of a chunk of data which relates to (0.3) to research questions. (supervision session, Year 1)

The second problem concerned the ambiguous definition of coding categories. For example, SL wanted to categorize nurses' and patients' interactions as displaying the quality of being "nice" and of being "lovely." One attempt at this drew the following comment:

CS: so what is the difference between lovely and being nice? (supervision session, Year 1)

Another example of this, involving different codes, resulted in the following comment from CS:

I can't understand how you have separated these into "sub categories" on the basis of their use of the word "difficult." You seem to end up separating things that are alike, and placing together things that are unlike. The logic behind it all escapes me. (written comment, Year 3)

The third problem concerned problems with the reporting or recording of data, often involving the omission of line numbers in transcripts or the names of speakers. Comments reflecting these problems include

Can you give the line numbers? (written comment, Year 2)

Who is she speaking to? (written comments, Year 2)

The fourth problem concerned the inaccurate interpretation of data, which could involve overinterpretation by SL:

This seems like an idealization. Can you support with evidence, and demonstrate the difference between hospice and hospital here? (written comment, Year 2)

I feel you are over-interpreting the word "bloody," which is just a word used to emphasize the "time" she had. (written comment, Year 4)

### Five Strategies for Improving Data Analysis

Five strategies for improving the rigor of data analysis were also identified. These were connecting (26 instances), separating (33 instances), contrasting (14 instances), deleting (23 instances), and quantifying (34 instances).

The first of these, connecting, was characterized by the need to establish a rigorous and valid connection between statements made by the researcher and the actual data:

Be rigorous about connecting the stuff together, get rid of irrelevant stuff like medicalization which has no connection. (supervision session, Year 2)



The second of these, separating, was characterized by the need to separate participants' categories (emic analysis) from SL's categories (etic analysis) and from the views of other authors:

What data extracts show nurses doing this? I feel you need to separate your material more firmly into 3 separate areas: 1. data, 2. your comments, 3. what other people have found/said. (written comment, Year 1)

The third of these, contrasting, was characterized by advice on adopting a systematic approach to identify regular features or differences across settings. For example,

CS: just take one of the categories. Do the others later and then do the same for the whole of the data and you get a contrast, and a systematic comparison. (supervision session, Year 2)

The fourth of these, quantifying, was characterized by advice about counting or establishing the size of a selection of data needed to sustain arguments,

CS: well to sustain a statement the hospices nurses don't describe other professionals as callous I think we'd probably need to see many many many more instances of hospice nurses describing other professionals . . . you need to really sustain that with a very rigorous data analysis of a large number of extracts you would need to be able to make statements like that. (supervision session, Year 3)

The fifth of these, deleting, was characterized by advice to get rid of irrelevant materials:

CS: telling atrocity stories—its just a little bit too much so if you could just cut it. (supervision session, Year 3)

Having outlined something of the nature of the problems SL experienced through examining the advice offered by CS, we now proceed to a fuller account of some of these as well as showing how these issues were interactionally managed by both parties to the supervision.

### Detailed Analysis of Specific Interactions

In the sections that follow, we identify specific units of text taken as examples from SL's written assignments to exemplify in greater detail the different kinds of problems and solutions that she experienced.

**Table 1**  
**List of Research Questions**

---

How do nurses account for their daily work practices?
What is the relationship between the physical, psychological, psychosocial, spiritual, and cultural components of care in nurses' practice?
Is the boundary between these fixed or fluid? Do nurses work in discrete categories?
How do nurses enact psychosocial care in daily practice?
Is psychosocial care given in and out of physical care?
What are the indicators of psychosocial care for nurses?
What indicators do nurses use to assess the dying patients' psychosocial needs?
How do nurses judge the quality of psychosocial care?

---

Source: SL (written assignment, Year 1).

**Table 2**  
**Extract 1—Supervision Session, Year 2**

---

1 SL: its quite daunting though you know so much I mean I feel overwhelmed
2 by all these data

---

Accompanying these extracts are examples of supervisory interactions that receive a detailed analysis (drawing on CA; Hutchby & Wooffitt, 1998) designed to show how issues of data analysis were discussed, tackled, and resolved in interaction. These also revealed particular interactional and communicative skills exercised by both participants, which helped maintain the relationship and ensure continuing progress.

#### *Reducing the Size of the Task*

This relates to the first problem identified above: the fact that SL experienced initial difficulties in seeing where to begin or how to relate research questions to data. In Table 1 we have shown a list of research questions taken from an early written draft.

Referring to these research questions and to the data she has collected, SL expresses in Extract 1 (Table 2) how she feels about the prospect of relating her data to these questions: Her "you know" at line 1 suggests that she is trying to get CS to understand this from her perspective. The talk suggests that SL felt quite stuck, not knowing what to do with the data she has collected. This feeling is not uncommon in novice researchers (Coffey & Atkinson, 1996). Extract 2 (Table 3) shows SL and CS attempting to tackle this problem.

In Extract 2, CS responds to SL's expressions of distress ("daunting" and "overwhelmed") in Extract 1

**Table 3**  
**Extract 2—Supervision Session, Year 2**

---

69	CS: so one approach to data analysis is for example take the
70	first (0.3) question and say which bits of my data shows
	nurses
71	accounting for the daily work done
72	SL: ah oh right
73	CS: just take just one research question to start with and you
	can have a
74	code called (0.5) nurse's account or account or something
	like that
75	SL: yeah
76	CS: and you just go through the data thinking (0.4) which
	bits shows
77	nurses accounting for their daily work practices right
78	SL: oh right, really yeah
79	CS: maybe that bit and that bit goes there, all of it is to
	show nurses
80	accounting so what is the idea of accounting accounting for
	( ) then
81	save all of it
82	SL: yes

---

by offering an approach that he has used in previous research to manage data. This involves selecting a single research question from a list like that shown in Table 1 (line 73), inspecting data in relation to this question alone (line 76), breaking down textual data by marking parts (line 70) that relate directly to the selected research question, and then collecting together “all of it” (line 79) on the grounds that it shares similar characteristics (lines 80-81). In a final step, SL is advised to create a saved file for this collection (line 81). SL indicates that she has learned something new marked by surprise tokens (“ah oh right”) at line 72 and a change-of-state token (Heath, 1992) where she says “really” at line 78. CS in Seale (2004a) has published written advice of this sort, advocating a stepwise and systematic approach to reduce data analysis to tasks of manageable size.

In Table 4, we have provided an example of SL's final year work that demonstrates her application of this approach, showing how she organized her data into manageable selections for analysis. The data extract shows a nurse describing a patient to another nurse, with explanatory comments from SL in italics. In her interpretation, presented in a written draft, SL explains how she applied a code to select extracts like this, which involved nurses describing physiological reactions of patients. She describes a code called “physical conditions” (line 7) and refers to examples

**Table 4**  
**Data Extract From Final Year Written Work**

---

47	A: [P is] <u>very breathless</u> . He is marking very very quickly.
48	He doesn't move at all in his bed. Change of mattress?
49	(“A” was talking to D who said she would see to it).
50	A: I think he is not imminently dying. He does need turning
51	frequently. Not taking any solid food, just build-up. (“A”
52	then discussed his drugs). <u>Complained of left side chest</u>
53	<u>pain</u> which is worse. He had medicine which helped.
	“A” is a palliative care nurse talking about a patient to
	“D,” another nurse. “Marking” (line 47) is a nursing term to
	describe a particular quality of breathing.

SL's interpretation:

- 1 First, I bracketed bits of data that just contained nurses' description of patients'
  - 2 physical conditions associated with patients' physiological reaction to their illness
  - 3 in an instance of talk. I then underlined particular words or utterances spoken by
  - 4 palliative care nurses that described these conditions in the contexts used, for
  - 5 example: “Complained of left side chest pain” (lines 52-53); or “very breathless”
  - 6 (line 47). Thus pain and breathlessness served as indicators of physical conditions.
  - 7 I named these as “physical conditions” only.
- 

of data included in this category (lines 5-6). Her effort drew the following comment from CS:

This seems pretty convincing. (written comment, final year)

#### *Consistency in Assigning Meaning*

A second problem that occurred in SL's early work concerned inconsistencies in assigning data to coding categories, so things that did not share the characteristic described by a code were placed together. For example, SL wanted to code instances where nurses or patients described each other as “lovely” as part of a broader coding concept involving nurses and patients conferring positive qualities of character on each other. An early extract showed that she had looked for the occurrence of the word “lovely” and had failed to examine whether it was being used in a way that applied it to a nurse or a patient yet had included these instances under the coding category. This prompted the following exchange, demonstrating SL's having learned how to disambiguate the meaning of words to apply codes consistently (Extract 3, Table 5).

**Table 5**  
**Extract 3—Supervision Session, Year 4**

---

155	CS: yeah “you’re lovely” that’s what counts, isn’t it?
156	SL: yes that’s what counts
157	CS: because if they are about a “lovely meal” you don’t count
158	SL: no no no
159	CS: so you do a string search
160	SL: uhm hmn
161	CS: and you look at the full text
162	SL: uhm hmn
163	CS: and you think (0.3) that’s got the word “lovely” in it is that the
164	nurse’s [view ( )
165	SL: [that’s right I look at it
166	CS: for these you code it a list of ( )
167	SL: that’s right that’s how I did it
168	CS: cos in the technical language that’s called disambiguating
169	meaning
170	SL: yes I remember you saying to me or advising me you know I’ve got to
171	look at how that word is used is it used (0.3) in a you know
172	CS: yes

---

Instead of asking SL a direct question such as “What have you counted as lovely?” CS begins by providing an “answer” in line 155, which is then reversed to formulate a question (“that’s what counts isn’t it?”). The use of the question–answer reversed format serves to appeal to SL for his preferred “correct” answer. There is evidence of a social alignment of perspectives in SL’s “yes that’s what counts” at line 156, echoing CS’s phrase, her “that’s right” at 165 and 167, and SL’s extended turn at 170–171, which is received by CS with a “yes” at line 172. CS’s repeated use of the inclusive marker “you” at lines 157, 159, 161, 163, and 166 serves to present SL as a competent person (Pomerantz, 1987) who must already know about this aspect of data analysis, suggesting that CS is attempting to enhance the prospects of alignment.

What might be the result of this kind of exchange in the early stages of the PhD project can be seen in Table 6, which shows an extract from SL’s Year 5 written work in which she comments (SL’s interpretation) on a data extract (Table 6) showing a nurse constituting a patient as “lovely,” something which was eventually to be constituted by SL as a core enactment of psychosocial care as symbiotic niceness (Li, 2002, 2004, 2005).

**Table 6**  
**Data Extract From Year 5 Written Work**

---

27	N: [Patient is] aged 41, in room 7. Lovely woman; control her pain. She’s
28	just lovely. Lovely skin at 41

SL’s interpretation:  
 Extract C, above, displays some of the characteristics picked by [nurses] to describe a patient as a “lovely” person. The description of “lovely” seems to be associated with the patient’s age, physical appearance, and personality.

---

**Table 7**  
**Conflating Research Categories and Nurses’ Categories**

---

1	Following my systematic way of searching for <u>categories</u> , a general pattern
2	emerged. It soon became clear to me that <u>these categories</u> were used by nurses in
3	different contexts. For example, in [one] setting, the positive adjective “ <u>lovely</u> ” was
4	used six times in contexts when patients were described as free of both mental and
5	physical problems associated with a particular disease or illness. It was used once
6	when a patient’s physical characteristic was referred to, and once in contexts when 7 patients’ physical problems were described.

---

Source: SL (written assignment, Year 2).

### *Whose Categories?*

Another aspect of coding that caused SL some trouble in the early stages of the PhD project concerned difficulty in distinguishing participants’ concepts from her own coding categories. In Table 7, we display an example of written work from Year 2 that attracted this charge from CS.

Here SL uses “categories” (lines 1–2) to refer to nurses’ deployment of the word “lovely.” We have seen, of course, that instances where there is conferment on another person of the quality “lovely” are of considerable interest to this project, and there is a sense in which “lovely” is indeed an actor’s category. However, SL also refers to “my systematic way” of searching for categories (line 1), suggesting to CS that “my way” and nurse’s way were being conflated. In fact, it eventually became clear that the quality of being nice could be conferred by patients and nurses on each other by a variety of methods, with the use of the adjective “lovely” being just one of these methods. It is Schutz’s



**Table 8**  
**Extract 4—Supervision Session, Year 2**

88 SL: In my mind maybe (0.3) categories and words are the  
you know mean  
89 the same thing in my mind

(1953) notion that social science involves making “constructs of the second degree, namely constructs of the constructs made by actors on the social scene” (p. 3). In this instance, conferment of the quality of being nice is a second-degree construct, and the concept of being “lovely” is an actor’s construct. CS’s written comment on the extract shown in Table 7 points to his worry that these are being conflated:

CS: A “category” seems to me to be a different thing from a “word.” You mean “words” don’t you? (written comment, Year 2)

Extract 4 (Table 8) displays SL’s understanding at the time. This issue was taken up elsewhere in supervisions in Year 2, as is shown in Extract 5 (Table 9).

Here CS checks SL’s understanding by using questions that are designed to probe and clarify (“aren’t they?”; “your category?”) at lines 53 and 55, in an attempt to locate exactly where the problem lies. SL’s responses at lines 47 to 49, 54, and 58 display her explanations marked by the contrast of negative and positive: “well, it wasn’t”—“its separate” (line 47), and “yeah but” (line 54). SL’s difficulties exemplify what Wisker (2005) has described as “a fog of incomprehension” (p. 16). CS continues to allow SL spaces to clarify herself by passing his turns marked by an acknowledgement marker “uhm” (Heritage & Sefi, 1992) at lines 57 and 59. SL’s question at line 60 is designed to appeal for explanation from CS. CS’s explanations at lines 61, 63 to 64, 66 to 69, and 71 and 72 receive newsworthy responses (Greatbatch, 1992) from SL—“ahh” (line 52), “ah hha” (line 62)—and positive responses at lines 65, 70, and 73. Such responses display SL’s curiosity and her eventual declaration that she has learned something new, that is, how to build words used by actors into categories for the purpose of analysis.

#### *Overinterpretation of Data*

A number of early attempts at data analysis involved SL’s making interpretations that were not supported by the evidence in data extracts. Learning how to confine comments to the evidence at hand was therefore a key task for her. In Table 10, we provide an

**Table 9**  
**Extract 5—Supervision Session, Year 2**

46 CS: Cheerful happy  
47 SL: (slight laugh) (0.3) Cheerful and well it wasn’t its  
separate cos I put the  
48 two categories together but happy is their category  
separately and I put  
49 them together for analysis  
50 CS: OK erm I wasn’t sure what were the categories what  
was the meaning  
51 word they use  
52 SL: Ahh  
53 CS: These are the words that they use, aren’t they  
54 SL: Yeah but I’m using that as a category as well (0.9)  
55 CS: Your category?  
56 SL: Errr yeah (0.2) they use the word lovely what a lovely  
person  
57 CS: Uhm  
58 SL: So I collect all these lovely together and made my own  
category  
59 CS: Uhm  
60 SL: How do I differentiate it?  
61 CS: well a category is something like the category that you  
have made up  
62 SL: ah hha  
63 CS: will be something like (0.4) positive images of patients  
with  
64 positive description as opposed to negative description  
65 SL: oh right  
66 CS: that will be a category to categorize the nurses’ talk  
(0.3) so different  
67 words like lovely nice special entertaining good words all  
these (0.3)  
68 contributing examples for the general category of positive  
(0.6)  
69 description of patients  
70 SL: alright  
71 CS: so words like bad tempered (0.3) erm are contributing  
examples to  
72 the category bad patients now that that  
73 SL: yes

example that attracted this charge from CS. The data extract is a transcript of an audio recording in which a nurse hands over to another nurse (B) at the end of her period of duty in which the condition of patient J is reported. SL’s interpretation, presented in written work, is then given.

Three problems can be identified in SL’s interpretation of the data extract in Table 10. The first concerns her speculative approach to interpreting nurses’ motives at lines 13 to 15. The data extract does not provide strong evidence that the nurses have been trying to achieve a state in J of “remaining mentally alert,” with a comment at lines 11 to 12 in the data extract merely referring to the fact that his degree of confusion had

**Table 10**  
**Speculation and Evidence—Data Extract**

---

1 [he] is supposed to be going to the [hospital], but  
 2 everything's been cancelled because he's so unwell.  
 3 He is dying now (0.3) but he rallied round this  
 4 morning. When B thought he was going to die (0.3)  
 5 he is very very thin (0.3) he was very  
 6 unwell yesterday too (0.3) drug  
 7 increased. He felt more comfortable, he felt no pain,  
 8 just a few burps (0.4) complained about tingling in his  
 9 finger tips. I think he's just going to be a man who is  
 10 to die very quickly. M (his friend) was very  
 11 worried on the phone this morning (0.3) said J was  
 12 confused. But the nurses thought not

SL's interpretation

13 Analysis of data shows that nurses in this hospice may be  
 14 trying to prepare J for a  
 15 good death that is pain free and comfortable with J remain-  
 16 ing mentally alert till the  
 17 end. My observation seems to contradict Glaser and  
 18 Strauss's (1967) suggestion that  
 19 when a patient is fully alert whilst dying, it can be awkward  
 20 and unsettling for  
 21 those involve in his/her care because dying may not be  
 22 quiet and peaceful. The  
 23 nurses' activities around J and his friend displayed in their  
 24 account may represent  
 25 an attempt to achieve the hospice philosophy of a good and  
 26 normal death.  
 27 Anything that deviates from this ideal such as M's per-  
 28 ceived confusion in J  
 29 (line 12) may be disputed or dismissed by the nurses  
 30 because to have someone  
 31 dying in a confused mental state is quite disturbing. This  
 32 means that it may  
 33 potentially threaten their achievement of enabling a good  
 34 death with J remaining  
 35 mentally alert till the end.

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Source: SL (written assignment, Year 2).

been discussed. CS's written comment on lines 13 to 15 of SL's interpretation identifies the problem of overinterpretation:

What in the data shows them trying to achieve this?  
 (written comment, Year 2)

A second problem is located at lines 18 to 19 of SL's interpretation, concerning her comments about what the nurses' activities might represent in terms of trying to achieve a good and normal death. CS's written comments indicate this critical view:

This is very speculative. They might simply perceive things differently. (written comment, Year 2)

A third problem relates to SL's reflection on the views of other authors at lines 15 to 17 of her interpretation. CS observes,

We need to see more details of what Glaser and Strauss said in order to evaluate this. (written comment, Year 2)

Finally, in the report of the supervision session in which this written work was discussed, CS summarizes his view of the work:

We discussed data analysis. Much of value, but a need to be more rigorous in restricting claims to available evidence in data. (supervision report, Year 2)

Possibly, the effect of these exchanges can be demonstrated in an extract from later written work in which a recording of an instance of talk during a shift change between morning and afternoon staff in a hospice is analyzed by SL (data extract in Table 11). In SL's interpretation, first, the extract as a whole is described by SL as conveying "sarcasm" (line 1), and the patient as "awkward and ungrateful" (line 2). SL draws attention to the unusual nature of this behavior by referring to other literature (lines 3 to 7). She points out the absence of courtesy and links the invocation of the patient's "presence" (lines 8 to 13) directly to particular parts (line 104) of the data extract. The oxymoronic notion of an absent presence is a rhetorical flourish by SL adding to the elegance and therefore persuasiveness of her analysis. This effort elicited the following comment from CS:

Very good bit of analysis. Good use of the literature. This is impressive. (written comment, penultimate year)

## Discussion

This analysis of written assignments and supervisory dialogues reveals processes of teaching and learning that seem to us to be related to changes in SL's approach to data analysis over the period of the PhD work. Clearly, SL's learning will have been influenced by a number of other factors as well, so we are not claiming that supervision is the only way forward in learning these skills. Initial problems involved the experience of not knowing where to begin analyzing a large body of qualitative materials or how a coding scheme might assist with this, how such a scheme might be used to relate data to research questions and how to create and apply coding categories in a consistent manner.

**Table 11**  
**Data Extract—The “Stroppy” Patient**

89 P, female, 88, likes to be known as T, CA  
 90 bladder, previous ovary and tongue, your favorite lady  
 91 (*Speaking to other nurse*). Fractured femur September last  
 92 year (0.6) ah (0.3) oh (0.3 well, she’s been ok. I could  
 see the  
 93 daughter just behind the door, probably having a fag  
 94 (laughing), ginger hair, managed to avoid dealing with  
 95 her (P) daughter around fairly late, luckily, I didn’t have  
 96 to deal with her. I was glad I didn’t meet her. She (P) was  
 97 up 3 times (0.4) on the loo, a bit stroppy this A.M. I am a  
 98 bit cross, commode, leg out, then I got on with  
 99 oromorph, she’s lying with her eyes shut, can’t be  
 100 asleep (0.4) I’m afraid I was not very professional  
 101 but (0.7) there you are, we are going in to give pain  
 102 tablets in her room and she’s stroppy, so we gave her  
 103 the pain killer and say “thank you, good-bye”  
 104 (gestured with a wave of her hand)

SL’s interpretation:

- 1 The sarcasm implicit in the nurse’s talk serves to give weight to the presentation of
- 2 P as an awkward and ungrateful patient. Sarcasm in this context appeals to the
- 3 shared commonsense view of the nursing world. As shown by Ritvo (1963) and
- 4 Stockwell (1972), in the “normal,” orderly nursing world, there is a general pattern
- 5 that patients are courteous and respectful towards those who take care of them. It
- 6 is not unusual for patients to thank nurses for doing things for them. Sometimes
- 7 patients’ appreciation is expressed in “thank you” cards, flowers or gifts. However
- 8 in this instance, the nurse reverses this order. This means that she substitutes P’s
- 9 “absent” courtesy for her own. The nurse further emphasizes this “absence” by
- 10 invoking the “presence” of this patient. This notion of “presence” is represented by
- 11 the double quotation marks, “thank you and good-bye,” which is reinforced by
- 12 the nurse’s hand gesture (line 104). It gives the impression that N1 is speaking to P
- 13 “directly” as if P is present. In truth, P is absent from this interaction. The
- 14 substitution serves to make a deliberate point that P is ungrateful for the services
- 15 rendered.

Source: SL (written assignment, penultimate year).

Early presentations of data involved problems of clerical accuracy (not discussed at any length in this article) and initial overinterpretation of evidence. In feedback on her written work, CS was able to assist SL in demonstrating the connection between her interpretations and

her data extracts and separate her own constructs or categories from those of actors so that her capacity for creativity was eventually displayed with rhetorical force. The deployment of these skills were eventually to succeed in persuading examiners and journal referees of the validity and originality of her contribution, which involved generating the theoretical category of symbiotic niceness to explain processes of psychosocial care (Li, 2002, 2004, 2005).

In this supervision, the process involved a rather didactic approach for extended periods. We have sought to show how particular question–answer formats achieved alignment of perspectives rather than conflict. We have shown elsewhere (Li & Seale, in press) how the feelings involved in giving and receiving praise and criticism in this supervision were interactionally managed by both parties. This enabled us to proceed with the kind of didactic pedagogy that we believed at the time to be necessary and which we have shown here. In doing this, we believe we enacted what Hammersley (2004) referred to as an apprenticeship, or craft, model for passing on research skills.

Effective communication skills in supervision help create a comfortable learning environment (one with gentleness and without harsh criticisms) in which students are not made to feel incompetent even though at times they are stuck for answers. It has been shown by Connell (1985) that giving students a sense of achievement and competence helps motivate them to learn and move on. A comfortable learning environment also helps to promote a climate in which students feel free to be curious. Curiosity is a motivator helping stimulate students’ interest in pursuing new knowledge (Hockey, 1996). It is therefore important to demonstrate how supervisory skills are deployed in interaction. We have shown the use of question–answer formats that are specifically designed to assess and challenge a student’s knowledge and to achieve alignment of perspectives to reduce the potential for conflict and disparity in interaction (Maynard, 1992).

Written assignments and written communications about these contain concrete exemplars that can be used to demonstrate the kind of problems and learning that supervisions involve. Our analysis of written assignments has revealed not only problems in the area of data analysis but also sources of rigor and validity. We hope that our findings will encourage more researchers to analyze students’ written assignments and supervisors’ written comments on them. As well as our own study, work by Roulston (2001), Quinton and Smallbone (2005), and Hyatt (2005) have demonstrated the value to be found in this

source of data in finding out how to teach and learn social research.

We do not claim that our findings are representative of all supervisions as they are based on a single case. The projects worked on by other students and supervisors would no doubt involve different kinds of analytic problems. Different approaches to data analysis are clearly feasible and appropriate. Other students and supervisors will also differ from us in their levels of knowledge and experience and in their approaches to giving and receiving feedback. We welcome the prospect of further observational research of the sort we present here. This will extend the evidence base in this field, where there is currently an excessive reliance on secondhand accounts of supervisions derived from interviews.

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