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Doing Template Analysis:

*Evaluating an end-of life care service*

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(i) **Contributor biographies**
Joanna Brooks is a Senior Research Fellow in the Centre for Applied Psychological and Health Research at the University of Huddersfield. Her primary research interests focus on applied research topics in health and education settings, usually around chronic health conditions. Jo has a special interest in issues relating to ‘significant others’ such as family members and close peers, and particular expertise in using qualitative research methodologies to research lived experience.

Nigel King is Professor in Applied Psychology, director of the Centre for Applied Psychological and Health Research and co-director of the Institute for Research in Citizenship and Applied Human Sciences at the University of Huddersfield. He has a long standing interest in the use of qualitative methods in 'real world' research, especially in community health and social care settings. His research interests include professional identities and interprofessional relations in community palliative care, psychological aspects of contact with nature and ethics in qualitative research. Nigel is well-known for his work on Template Analysis and, more recently, the development of a visual interview technique known as ‘Pictor’.

(ii) **Relevant disciplines:**
All social sciences
Business, Education; Health; Marketing; Media and Communications; Nursing; Psychology; Sociology; Social Policy and Social Work

(iii) **Academic level:**
Intermediate undergraduate; Advanced undergraduate; Postgraduate

(iv) **Methods used:**
Template Analysis*; qualitative data analysis; textual analysis; thematic analysis

(v) **Keywords:**
Template Analysis; palliative care; qualitative research; applied research
Abstract
In this chapter, we introduce the reader to Template Analysis, a method of thematically organising and analysing qualitative data in social science research. We outline the basic principles of the method and describe the main procedural steps involved in undertaking Template Analysis. We then use an example from our own research (the qualitative evaluation of an end of life care service in the United Kingdom) to demonstrate how Template Analysis can be successfully applied in a real world research setting.

Learning outcomes
The learning outcomes of this chapter are as follows:
1. To understand the principles of the qualitative data analysis method, Template Analysis;
2. To be aware of the steps involved in using Template Analysis in real world research;
3. To understand the broad range of research setting in which Template Analysis might be usefully applied.
Qualitative research in the social sciences often produces extensive raw data. To be able to move from this raw data to some understanding of experience, researchers need to select from a wide array of qualitative data analysis methods. The purpose of this chapter is to introduce readers to one particular approach to qualitative data analysis known as Template Analysis. We will introduce the method and outline its basic principles, then illustrate the main procedural steps involved in undertaking Template Analysis. We will then use an example from our own work to demonstrate how Template Analysis can be applied in a research context.

What is Template Analysis?
Template Analysis is a method of thematically organising and analysing qualitative data which has been applied in a broad range of research areas in the social sciences (King, 2012). Central to Template Analysis is the development of a coding template, which summarises themes identified by the researcher(s) as important in a data set, and organises them in a meaningful and useful manner. Themes are recurrent features of participants’ accounts characterising particular perceptions and/or experiences that the researcher sees as relevant to their research question. Coding is the process of identifying themes in accounts and attaching labels (codes) to index them. Once a researcher using Template Analysis has identified the themes or codes in their textual data, these are then organised by the researcher into their template, which is organised so that it usefully and meaningfully represents the relationship between different themes.

What kind of studies use Template Analysis?
The data involved in studies using Template Analysis are usually in the form of interview transcripts, but Template Analysis can be employed with any kind of textual data including focus group data, diary entries, or open ended question responses on a written questionnaire.

In the social sciences, quantitative research studies are, broadly speaking, concerned with precise and accurate numeric measurement of some aspect of the social world. Within the qualitative domain, ‘measurement’ is approached somewhat
differently, but it is nonetheless important that qualitative researchers develop a rationale for their work that is methodologically sound. This will have implications for how the research should be carried out, and how data should be analysed. For example, some qualitative approaches (such as discourse and narrative analysis) are strongly focused on the role of language in talk and social interaction. Other approaches are more concerned with the content of research participants’ talk, and these include thematic approaches to analysis such as Template Analysis. Template Analysis does not refer to a distinct methodology, or even a single, clearly delineated method of data analysis. It refers rather to a varied but related group of techniques for thematically organising and analysing data, and it is thus relatively flexible and adaptable to the needs of a particular study. This means that Template Analysis is a pragmatic technique which can be applied within a range of different qualitative research approaches. For example, it can be used by qualitative researchers taking a ‘realist’ position and concerned with the ‘discovery’ of underlying causes of human action and particular human phenomena. Research of this type would likely be concerned to demonstrate researcher objectivity and coding reliability. In contrast, Template Analysis can also be used by those taking what is known as a ‘constructivist’ stance - who assume that there are always multiple interpretations to made of any phenomena, and that these will depend upon both the position of the researcher and the specific social context of the research. In research such as this, there would likely be more focus on researcher reflexivity, acknowledgement of multiple potential perspectives and concern with the generation of rich description.

The main procedural steps in Template Analysis
As we have already described, one of the potential advantages of Template Analysis for social science researchers is its flexibility in adapting to the needs of different research projects. The procedure described here should not therefore be taken as prescriptive, but is intended to provide a useful overview of the main steps involved in undertaking Template Analysis.

1. Initially, you need to familiarise yourself with the raw data to be analysed. In a relatively small-scale interview study, you would probably want to read through the
full data set – that is, all the interview transcripts – at least once. In a larger interview study, you might select a sub-set of the transcripts to start with.

2. The next stage is to carry out preliminary coding of the data – this is essentially the same process used in most thematic approaches where you start by highlighting anything in the textual data which strikes you as relevant and potentially contributing to understanding of the research question.

**A priori themes**

In preliminary data coding in Template Analysis, it is common (although not always appropriate or necessary) to use some themes which have been identified in advance of coding. These are known as *a priori* themes, and they are usually identified because a research project has started out with the assumption that certain aspects of the research question being investigated should be focused on. *A priori* themes might also be used when the importance of a particular issue in relation to a topic is already very well-established. *A priori* themes can be very useful in accelerating the initial coding phase of analysis, which can often be rather time consuming. However, it is important to remember that *a priori* themes are always tentative, and can be re-defined or removed if they do not prove to be relevant, useful or appropriate. To lessen the possibility of any ‘blinkering’ effect on the subsequent analysis, it is usually recommended that researchers think very carefully about their choice of *a priori* themes, restricting their numbers as far as possible and selecting only those identified after careful consideration of the research aims.

<table>
<thead>
<tr>
<th>Illustration 1: An example of the use of <em>a priori</em> themes</th>
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</thead>
<tbody>
<tr>
<td>Brooks, McCluskey, King and Burton (2013) used a very well established theoretical model (Leventhal’s Common Sense Model of Self-Regulation or CSM) to explore beliefs about back pain symptoms amongst patients and their close family members. The researchers then used key dimensions derived from the CSM as <em>a priori</em> themes in their data analysis. This provided a logical starting point for analysis, but it also allowed additional new codes, which emerged through data analysis, to be identified and incorporated into their final template structure.</td>
</tr>
</tbody>
</table>
3. Once you have identified themes or codes in your textual data, an initial **coding template** can be defined. The template is organised so that it usefully and meaningfully represents the relationship between different themes or codes. Often, an initial coding template is developed on a subset of the data – this is perfectly acceptable, but you should ensure that the data selected for this purpose includes varied accounts which capture a good cross section of the issues and experiences presented in the data overall.

Deciding at what stage to produce an initial template is an important consideration in Template Analysis. It is possible to do this after preliminary coding of just one interview transcript; it is also possible to wait until after every transcript has undergone detailed analysis for initial themes. In most studies, the initial template is usually produced at a point between these two extremes. The danger of producing an initial template earlier in the process of data analysis is that this can hamper your ability to approach each new transcript with an open mind. You may become over-sensitised to material that “fits” the existing template, whilst neglecting material less easily encompassed. However, proceeding earlier with the formulation of an initial template allows you to focus on areas of greatest relevance to your research, and to avoid potentially redundant or repetitious coding.

Template Analysis does not suggest in advance a set sequence or number of coding levels but encourages you to develop themes more extensively where the richest data (in relation to the research question) are found. *Hierarchical coding* is emphasised, with broad overarching themes (e.g. "Responses to illness") encompassing successively narrower, more specific ones (e.g. "Changed relationships"). *Parallel coding*, whereby the same segment of text is classified within more than one different codes at the same level, can also be used if appropriate. A template may also reflect lateral relationships across theme clusters - themes which permeate several distinct clusters are referred to as *integrative themes*. Later in this chapter when we describe how we used Template Analysis in our own research, we will provide an example of an integrative theme.

4. The initial template can now be applied to further data and modified as necessary. Where existing themes do not readily “fit” the new data, modification of
the template may be necessary. New themes may be inserted and existing themes redefined or even deleted if they seem redundant. Rather than reorganising the template after every new account examined, it is common to work through several accounts noting possible revisions and then construct a new version of the template.

5. This iterative process of trying out successive versions of the template, modifying and trying again can continue for as long as seems necessary to allow a rich and comprehensive representation of your interpretation of the data. Of course, very often practical constraints of time and resource may limit the number of iterations possible, but the analysis should not leave any data of clear relevance to the study’s research question uncoded.

6. Once a ‘final’ template has been defined, this is then applied to the full data set. The ‘final’ template can now serve as the basis for your interpretation of the data set, as well as a useful guide and structure to the writing-up of research findings.

**Displaying the template**

Whether or not it is appropriate to display the template – and in what degree of detail – is likely to depend on the specific outlet for research findings, and pragmatic constraints such as stipulated report guidelines and word limitations. A very detailed template that may help data interpretation might, for example, require simplification or refinement - or may be better as an appendix to a research write up.

Templates can be displayed in whatever way the researcher feels to be most helpful in communicating their analysis, but there are two main styles which tend to be used: a linear ‘list’ presentation or a diagrammatic ‘mind map’. Whilst a ‘mind map’ style can be very useful to illustrate lateral links between thematic clusters, most published work using Template Analysis presents the template in a linear format. Indentation, typography and/ or some method of numbering can be used to distinguish different levels of coding on the template.
**Writing up**

Writing up a study using Template Analysis can be approached in a number of different ways and will inevitably be constrained by the requirements of different publication types (theses and dissertations will face differing format constraints from journal articles for example). There are three broad approaches to presenting a Template Analysis study: Individual case-studies, followed by a discussion of differences and similarities between cases; An account structured around the main themes identified, drawing illustrative examples from each transcript (or other text) as required; A thematic presentation of the findings, with a small number of full case-studies to illustrate key themes.

**Example of a research project using Template Analysis**

We will now use an example from our own work to demonstrate how Template Analysis can be deployed in a real research context.

**Background to the study**

Our example is taken from a research project commissioned to evaluate a specialist service providing home-based care for patients at the end of life. It is quite often the case that patients with a terminal illness (and their families) prefer to be cared for in their own home rather than in a hospital or hospice environment. This requires very specialist services with particular skills and knowledge. Our research was part of a larger piece of work commissioned by a well-known charity in the United Kingdom, Macmillan Cancer Support. Macmillan had helped to set up an innovative service to provide end of life care in one area in the south east of England, and we were part of a group of researchers who undertook an evaluation of the service to see how well it was achieving its objectives. We refer to it throughout this chapter as ‘the Service’.

The Service, staffed by a team of specialist professionals and by a large team of volunteers, was unusual and innovative in a number of ways. It was one of only two such services available in the United Kingdom, and was particularly notable for its provision of clinical interventions and treatments usually considered to require hospital admission in the patient’s home environment.
The study data set
The evaluation research consisted of various quantitative measures, including both financial resource measures and surveys of patient, carer and professionals’ experience of and feedback on the Service. Our role in the work was to explore, using qualitative (interview) methods, the experiences of patients; informal caregivers; health and social care staff and the Service staff team members. More specifically, it was concerned with the role of the Service team and the nature of its relationships with patients, carers, and other health and social care professionals. This was examined from the perspectives of all these groups.

We therefore collected our data through interviews with three groups of people associated with the Service: (1) 30 staff and volunteers working as part of the Service team; (2) 21 patients and carers receiving treatment and/or care and support from the Service; and (3) 18 health and social care professionals involved in some degree of collaborative working with the Service. Our total sample size was 69 interview participants. This is a rather large number of participants in comparison to many research projects utilising qualitative methods. An advantage of using Template Analysis is its ability to comfortably handle very different sizes of data set varying from a single case study, through small samples, right up to very large sets of data such as in this piece of research.

Data analysis – preliminary coding and initial template
We have already noted that it is acceptable in Template Analysis to select a subset of data to facilitate preliminary coding. The approach we took in this project was to develop an initial template through group analysis of interviews undertaken with members of the Service’s staff and volunteer team. Initially, our research team of four members (ourselves and our colleagues at the University of Huddersfield, Jane Melvin and Alison Bravington) met on a number of occasions to undertake preliminary coding on interviews with different kinds of staff members – managers, nursing staff, volunteers and doctors. We drew on priority areas covered in the interviews to define our codes, as well as identifying any key themes emerging from participants’ interviews. Once our preliminary coding was no longer producing distinctly different new themes, we deemed it an appropriate point at which to formulate our initial template. As well as our preliminary coding, we used a priori
theme headings derived from our stated research aims and objectives to help formulate an initial template. Our a priori themes were very broadly defined and, given our research aims, focused on participants’ experiences of working for, or with, the Service team, or of receiving care and support from them.

**Data analysis – developing and finalising the template**

This research project took place over a two year period and we recruited our other groups of interview participants (patients and carers; external health and social care staff) through contacts established through staff at the Service. Data collection proceeded in parallel with data analysis. Given the size of our participant numbers and the pragmatic time constraints of a funded project which was being completed to deadline in collaboration with other academic institutions, it was not feasible to wait until data collection was complete before proceeding with our analysis. We took great care throughout to ensure that our on-going analysis was not blinkered or unduly constrained by our initial template design.

We met at regular intervals as a research team to apply the template to further interview transcripts as they became available. This kind of collaborative strategy, working together as a research team, can be very useful as it necessitates clear agreement and justification for the inclusion of each code on the template, and a clear definition for its use. All relevant segments of data were coded, and where material emerged which did not appear adequately covered by an existing code, the template was modified. Previously coded transcripts were then re-coded to the modified template in an iterative process. To further assist our effective collaborative working on this project, we also formulated a ‘summary of themes’ document which clearly and succinctly explained what each theme title at top and lower level referred to.

A template for the project was formulated by the research team which was agreed ‘adequate’ - that is, it had been applied by the team to a number of interview transcripts taken from different participant types and was agreed to cover all sections of text thus far encountered adequately. Team members then worked their way through the remaining interview transcripts individually. At this point, the agreed
‘summary of themes’ document became a very useful reference tool to assist in coding.

**Data analysis – final template and writing up**

A summary of our final coding template for this project (showing just top and second level theme headings) is shown in figure 1.

There was obviously still some considerable work to do beyond coding all the data to the final template before we were able to produce our eventual research report. The research team looked at patterns across the data set, and we identified and prioritised those themes giving the most valuable insights in the light of our research aims. The final account of our research findings was integrated with those findings from other research teams working on different aspects of the service evaluation, and presented in a final report to the research funder. In Template Analysis, as is common in other forms of qualitative data analysis, direct participant quotes serve to illustrate and support a researcher’s interpretation of the raw data, and allow readers to make their own assessment as to the credibility of the account presented.

Our final template encompassed three main themes: (1) How the Service works with other (external) services; (2) How the Service works with patients and carers; and (3) Looking forwards. We also identified an integrative theme ‘What makes the Service special?’ which covered ways in which the Service was perceived to offer a unique approach to care, as this evidently permeated all of the other hierarchical clusters identified. Below, we briefly describe each main theme and provide some quotes by way of example.
Figure 1: Simplified version of final study template (top and second level themes only)

1. How does the Service work with external services?
   1.1 Policies, procedures and documentation
   1.2 Understanding and negotiating who does what
   1.3 Dealing with power and hierarchy

2. How does the Service work with patients and carers?
   2.1 Genuinely holistic services provided for patients and carers
   2.2 Finding ways in
   2.3 Building up relationships
   2.4 Patient/Carer awareness and utilisation of services available

3. Future directions

A.1 Integrative theme – what makes the Service special?
   A.1.1 Complex interventions
   A.1.2 In-house consultant operating in the community
   A.1.3 Service team dynamic
   A.1.4 Filling service gaps
   A.1.5 Prevents admission to hospital
   A.1.6 Reliance on volunteers
   A.1.7 Getting in early
   A.1.8 The Service Centre/clinic setting
(1) How the Service works with other (external) services

This theme examined the successes and frustrations encountered by Service staff through their necessary collaboration with a broad network of different care services and teams (including Primary and Secondary Care services, hospices and social care) to provide domiciliary (at home) care for their patients. We identified three broad types of collaborative working, according to whether the Service took lead responsibility for a case, shared care in a roughly even way with other services, or largely played a supporting role to other services. The overall impression from interviews with both the Service team and their colleagues from external services was that collaborative working was generally very successful. Effective liaison with other professionals was accorded a high priority by the Service. Such collaboration was felt to benefit patients and carers not only by enabling the best possible care to be provided, but also by ensuring that patients and carers were not confused or overwhelmed by the sheer number of professionals calling on them. Service staff were very conscious of the need to negotiate roles with colleagues in other services so as to avoid any perception that they were “stepping on toes” with regards to other professionals. Personal relationships were highlighted as very important in these efforts to work well with other services and to minimise role conflicts.

Illustration 2: How the Service works with external services - example quotes:

Working with other services to provide comprehensive at home care:

“For instance I’ve just had a patient who’s post chemo, she has to have an injection (to boost) her white blood cell count, so she has to have five of those, one a day, so I’ve managed to do two of those and the [professional from another service] handled the other three.”

(Service staff member)

Successful collaboration with a broad network of care services:

“It’s the liaison that is absolutely, really strong, so strong, really helpful.”

(Patient)
(2) How the Service works with patients and carers

In this theme, we reflected on what was distinctive about the Service’s approach to patient care, and examined ways in which this care additionally sought to encompass carers and family members of the patient. Patients and carers interviewed were unanimously positive about their experience of the Service. The fact that the care provided was felt to be truly holistic, going above and beyond solely medical management was often cited in this regard. For example, emotional responses were accepted as an integral part of the illness condition and psychological as well as medical support was provided by the Service. The Service also acknowledged the needs of those close to the patient in addition to the patient themselves, and support provided routinely extended out to family members. Patients and carers itemised a number of different ways in which they had accessed and appreciated support services provided by the Service. Knowledge about and ability to provide pain management and relief were of significant importance, but patients and carers also identified many other ways in which they were assisted by the Service including personal care, emotional support, alternative therapies, administration and completion of forms, organising necessary equipment, facilitating communication between different services, providing advice and knowledge as to available support and services, and recruiting other sources of help and support. Patients and carers were hugely appreciative of the services available to them, and highly complimentary about those they had accessed.

Illustration 3: How the Service works with patients and carers – example quotes:

“I think people have a sort of view that palliative care is something that is sort of end stage, and that’s certainly not the case, we support them all the way along.”

(Service staff member)

“[My wife] trusts her too and I think that’s important because if things did decide to go wrong I would like to feel like [my wife] had got somebody that she knew quite well and that she could talk to and if the worse came to the worse you know, she’d be there afterwards as well.”

(Patient)
(3) Looking forwards

In this theme, we drew out ways in which staff, patients and carers thought that the Service could and should be developed. We explored the ways in which participants reflected on how the overall integration and co-ordination of palliative care services could be improved. Although many specific suggestions were made by participants regarding new services and/or facilities, very few were put forward by more than one or two individuals. More commonly participants simply said – sometimes in as many words – that they wanted “more of the same”. This comment might be made with regard to the team as a whole, or focus on particular services or areas of work. The call for expansion and/or greater resources for the existing team came from every group of participants in the study. Several participants also argued that the Service should be seen as a model for the development of other services to provide similar care at home at the end of life elsewhere.

Illustration 4: Looking Forwards – example quotes:

“I think they should double the Service […] it should be more widely [available] – it seems like quite a small organisation, the Service, it’s not really enough.”

(Patient)

“What would be fantastic, if this service – or another service similar – could get a really high profile and say “Look, this is what we’ve achieved, this is what we’ve done, and this is what we feel can be done”

(Service staff member)
**Integrative theme: What makes the Service special**

The Service offers a unique approach to domiciliary care, and this theme, which clearly permeated all other major thematic groupings identified, describes the features which make it so special. One important aspect was their ability to take on more complex cases who might otherwise not be able to remain in their home environment. Cases might be considered complex because of the type of treatment required, the presence of multiple co-morbidities, their family/social circumstances, or a combination of these features. The Service saw themselves as having a key responsibility in these sorts of cases, and this was recognised by other professionals.

Another ‘special’ characteristic was the comprehensive nature of the Service team, with doctors, therapy professions and counselling all available alongside nursing staff, and the Service volunteers (providing drivers, “sitting” services, administrative assistance, and also trained bereavement workers and complementary therapists). For many staff we interviewed, a central aspect of what makes them “special” was the dynamics of how the team works. Flexibility was seen as an essential quality, coupled with open, non-hierarchical relationships amongst them. The non-hierarchical nature of relationships within the Service was stressed by many participants. There was a strong sense that people are approachable whatever their profession or grade of seniority, and are happy to share knowledge and answer questions. Communication within the team was typified as informal and supportive. Comparisons between the Service team and the way other teams and services work were made by staff from the Service, staff from external services, and by patients and carers.

**Illustration 5: What makes the Service special – example quotes:**

“"I was having to go [to a hospital some distance away] to get these [blood transfusions] done, and I looked around to see if there was any method of doing this…and so I met [Service consultant] and he said "why don’t you get the [our Service] Nurse", and that’s how I got involved with them, and from then on they did it."

(Patient)

“I don’t feel there’s any hierarchy as such, which I mean that in a positive way, you know: the Consultants, the CNSs [Clinical Nurse Specialists], the Clinical Support Team, we all try and work as one, and there’s no fear of asking questions if you don’t know anything.”

(Service staff team member)
Conclusion

Whilst the example we have presented here is an example from a health care setting, Template Analysis can be used in a wide variety of research settings. Other published studies using Template Analysis include work in educational, organisational and other research areas. There are a number of key features which may make it an appealing choice for those undertaking qualitative data analysis. It is a highly flexible approach that can be modified for the needs of any study. It may be an effective alternative when other methods come with prescriptions and procedures which are difficult to reconcile with the features of a particular research study. The flexibility of the coding structure in template analysis allows researchers to explore the richest aspects of data in real depth. It lends itself well to group or team analysis and working in this way ensures a careful focus on elaborate coding structures as the team collaboratively define meanings and structure. The use of an initial template followed by the iterative process of coding means that the method is often less time-consuming than other approaches to qualitative data analysis. Template analysis can handle larger data sets rather more comfortably than some other methods of qualitative data analysis, although it can also be used with smaller sample sizes. Finally, its use of a priori themes means that template analysis may be particularly well suited to studies with particular applied or theoretical concerns which need to be incorporated into the analysis. The discipline of producing a template forces the researcher to take a systematic and well-structured approach to data handling, and the principles of the methods are easily grasped. We hope that this chapter will encourage you to explore using Template Analysis in your own piece of qualitative research.
Discussion questions

1. What might be some of the advantages and disadvantages of using *a priori* themes?

2. How might you use Template Analysis differently in a study of five participants compared to study including fifty participants?

3. What might be some of the challenges of working as part of a team using Template Analysis to analyse a particular data set?

4. How do you know when to stop developing your template any further when you are using Template Analysis?
List of further readings


Links to web resources

Template Analysis website: http://hhs.hud.ac.uk/w2/research/template_analysis/literature.htm

Template Analysis Facebook page: https://www.facebook.com/TemplateAnalysis