Examples of hierarchical coding systems

The following are some examples of hierarchical coding systems developed for different projects. (Lower level subcategories have been summarized in some instances.) They illustrate the point that the hierarchy is a taxonomy, or cataloguing system, rather than embracing theoretical associations. The latter are determined by using nodes or node trees in coding queries and/or matrix coding queries.

Project 1: Theory building – meeting the needs of spinal injured persons

This study was undertaken Lynn Kemp, during the period 1994 to 1998, and was the first comprehensive investigation of the lives of people with spinal injuries in the state of New South Wales, Australia. Different concepts of need (normative, felt, expressed, prescriptive, comparative, intrinsic, and need as a means to an end) were explored using surveys, interviews and document analysis. Interviews were conducted to determine:

- The relative importance of community services (personal care, paramedical, respite and transport) in the lives of people with spinal injuries;
- What people with spinal injuries wished to achieve in their lives; and
- What role community services played in helping (or preventing) people with spinal injuries to achieve their desired ends.

General issues

- accommodation
- access
- employment
- relationships
- health
- discrimination (in the community)
- psychological adjustment
- the future
- compensation
- hospital (historical)

Issues of service provision

- organization
- eligibility
- assessment
reliability
discrimination
quality
timing
availability
   cost
   knowledge
   limits
expectations of service providers
   have to be grateful
   appropriateness
relationship with provider
   relationships with workers
   privacy
   rudeness
   retribution

Services and support
   doctor
   dentist
   nurses
   social workers
   physiotherapist
   counselling
   informal care
   aids and equipment
   occupational therapy
   rehabilitation services
   home care
   home nursing
   community nursing
   transport
   transport allowance
   parking scheme
   financial support
   meals on wheels

Evaluation of services
   good
   poor
Life impacts

- others
- some other person
- the system
- self at a different time
- sportsman
- changed life
- becoming 'the disabled'
- bludger
- control
- no control
- security
- normal life
- relationships
- adjustment
- dependency
- dependent
- independent
- forced independence
- interdependent

**Project 2: Concept analysis – Child participation**

This schema brings together data from a series of projects exploring the meaning of participation from the perspective of children and young people. The research was conducted by members of the Asia Pacific Regional Network of the Childwatch International Research Network. The common framework was designed to facilitate further analysis and coordinated writing on the concept of child participation.¹

**Cultural factors**, including:

- gender issues
- generational issues,
  - ‘ownership’ of children
  - definition of child/young person/adult
- individualism vs collectivism
- attitude to personal development

¹ This framework was developed at an international meeting held at Bowral, Australia, which was supported by the Social Justice and Social Change Research Centre at the University of Western Sydney.
community attitudes to the role and ability of children

**Situationally defined context**, including:

- access to information
- language; internet
- location - home/school/community/world
- political structure
- freedom of expression
- opportunity for involvement
- socioeconomic status
- safety – security issues

**Process**, including:

- seeing children as having resources to participate
- reciprocity
- modelling from parents/leaders
- social/ parental/ peer support
- self confidence, skills

**Dimensions of participation**

- public – private
- personal agency – interconnectivity
- individual – social
- local – global
- personal – collective
- self – other (focus)
- immediate – sustained
- being – becoming
- significance of activity
- obligation – voluntary
- intentional – non intentional
- negative – positive
- passive – active
- humanity – materialism
- decorative – meaningful

**Implications of participation**, including:

- increase in opportunities
- sustainability
- civic engagement
- non-engagement (from non-participation)
Issues in participation, including:
  power dynamics
  communication styles/ modes/effectiveness

Project 3: Mapping experience – Symptoms of angina

This international study examined the experiences of women who were potentially experiencing angina (heart disease), with particular concern that, because they were women, their symptoms were often treated with scepticism. The qualitative data were then matched with diagnostic results from medical testing.

Description of sensation
  pain
  burning
  pressure

Location of sensation
  points of most intensity
    e.g. chest; jaw
  radiation
    e.g. from neck down arms
  pattern
    e.g. comes in waves

Intensity of sensation
  not too bad
  I think I'm going to die

Duration of sensation
  each episode
    short
    long time
  since it began
    e.g. two years

Triggers of sensation
  walking
  lifting
  argument

Meanings for sensation
  death
isolation
I'm getting old

**Actions taken**
- medication
- rest
- work
- seek help

**People or organizations referred to**
- doctor
- nurse
- hospital
- family
- neighbour
- friend
- church

**Access to health care system**
- facilitated
- hindered

**Consequences for daily living**
- can't work
- can't do daily tasks,
- became depressed
- became anxious

**Impact on roles**
- as a wife
- as a mother
- as a caregiver

**Other contextual issues**
- divorce
- moving house
- loss of job

**Narrative**
- metaphors-idioms
- quotes
- surprises
Project 4: Theory development – Health behaviour (childhood immunization)

Parents of young children were interviewed or surveyed with respect to their experiences of and concerns about childhood immunization, with a view to understanding what might encourage or discourage on-time compliance with recommended immunization schedules.

Issues re vaccines
   reactions
      potential for long term damage
      short term - physical
      short term - crying
   trusting
      trusting experts
      give protection
      belief in immunization
   questioning
      how effective?
      weighing up
   knowledge

Issues re diseases
   dangers
   experience of disease
      vicarious
      benign
      negative

Issues re process
   advice
   needles, pain

Strategies
   preparation
   support

Feelings
   fear-anxiety-worry
   empathy
   accepting
Actors
father
other relatives
friends
doctor
media

Other health issues
alternative medicine
baby's health

Sorting out a mess

The example that follows is for those who have already created coding structure before they found Chapter 5 in *Qualitative Data Analysis with NVivo* (because, of course, those who had read the chapter first would never end up with a mess of this sort)!

The column on the left is an example of a potentially viral coding system relating to the delivery and implementation of a training program for youth workers. Compare with the column on the right, where the coding system has been reorganised. Many less nodes are needed to cover the same topics; it provides for easy access to everything known about any particular factor or issue so it can be reviewed as a whole; it allows a range of other questions to be asked about any aspect of the program (such as whether it was seen as a strength or weakness, or when it occurred); and it allows for creation of more specific subcategories if needed, without creating more repetitive sub-trees.

Converting the first system to the second requires steps that need to be completed in the following order:

- Copy nodes at the lowest level in each subtree and merge with their immediate parent node (these can be done in groups) so that, for example, everything that was under *Immersion workshops* is now also at the *Immersion workshops* node (as well as remaining in nodes below it); everything under *Learning issues/Before* is now also coded at *Learning issues/Before*.

- Highlight and copy each node that means the same thing and merge into a new *child* node in a new tree for that kind of thing. For example, all the *before* nodes are merged into a single *before* node in the *Time* tree; all the *Strengths* nodes from wherever are merged into a node for that in the *Evaluation* tree); the two 3rd level *level of understanding* nodes are combined into a new 2nd level *Level of understanding* node.
under Learning issues (along with Level of interest, Resources available, Relationships in group and any other issues that might be found).

When you are sure you have it all covered in the new structure, you can safely delete the original (but check first!). What all the copying and merging will have done, effectively, is code the same text at multiple nodes. You will find matrix coding queries very useful for considering patterns of relationships between nodes in these trees, e.g., to see how learning issues change over time, or how the content and delivery of the training programmes received by or implemented by the trainees were evaluated. A matrix coding query will also allow you to compare the views of trainers with those of trainees (assuming both were interviewed and this has been created as an attribute of the cases).

<table>
<thead>
<tr>
<th>Repetitive version!</th>
<th>Suggestion for a revised version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training in new programme (group leaders)</td>
<td>Training component (for group leaders)</td>
</tr>
<tr>
<td>Immersion workshops</td>
<td>Immersion workshops</td>
</tr>
<tr>
<td>strengths</td>
<td>Follow-up training</td>
</tr>
<tr>
<td>weaknesses</td>
<td>On-going mentoring</td>
</tr>
<tr>
<td>suggestions</td>
<td><strong>Programmes implemented by trainees</strong></td>
</tr>
<tr>
<td>Follow-up training</td>
<td>Content</td>
</tr>
<tr>
<td>strengths</td>
<td>[specific subnodes covering particular aspects of content here if wanted]</td>
</tr>
<tr>
<td>weaknesses</td>
<td>Delivery</td>
</tr>
<tr>
<td>suggestions</td>
<td>[specific subnodes covering particular aspects of delivery here if wanted]</td>
</tr>
<tr>
<td>On-going mentoring</td>
<td><strong>Learning issues (in target group)</strong></td>
</tr>
<tr>
<td>strengths</td>
<td>Level of understanding</td>
</tr>
<tr>
<td>weaknesses</td>
<td>Level of interest</td>
</tr>
<tr>
<td>suggestions</td>
<td>Resources available</td>
</tr>
<tr>
<td><strong>Programmes implemented by trainees</strong></td>
<td>Relationships in group</td>
</tr>
<tr>
<td>Content</td>
<td>Evaluation</td>
</tr>
<tr>
<td>before</td>
<td>Strength (no subnodes needed!)</td>
</tr>
<tr>
<td>after</td>
<td></td>
</tr>
<tr>
<td>after</td>
<td>Weakness (no subnodes needed!)</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Suggestions (no subnodes needed!)</td>
<td></td>
</tr>
</tbody>
</table>

**Learning issues (in target group)**

<table>
<thead>
<tr>
<th>Before</th>
<th>Time referred to</th>
</tr>
</thead>
<tbody>
<tr>
<td>level of understanding</td>
<td>Before training and implementation</td>
</tr>
<tr>
<td>level of interest</td>
<td>After immersion training</td>
</tr>
<tr>
<td>resources available</td>
<td></td>
</tr>
<tr>
<td>relationships in group</td>
<td></td>
</tr>
</tbody>
</table>

| After | |
|-------| |
| level of understanding | |
| level of interest | |
| resources available | |
| relationships in group | |