Coding process description with details about each step followed to analyse students reasoning.

**Data excerpts**

- Many pages of text
- Many segments of text
- Initially created 45 categories (i.e. single ideas)
- Reduced overlap and redundancy in the code to 20 categories
- Identify the final set of conceptual resources (4 categories)

**Inductive approach to coding**

- Step 1: Initial reading of text data
- Step 2: Identify key ideas in students reasoning
- Step 3: Label text segments with code to create categories
- Step 4: Review and reduce first-level of coded with co-authors
- Step 5: Aggregate similar codes into broader category
- Step 6: Create data structure to summarise categories