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

Data excerpts

Inductive approach to coding

Specific level focus

Analysis

General level focus

Data excerpts	Inductive approach to coding
Many pages of text	Step 1: Initial reading of text data
Many segments of text	Step 2: Identify key ideas in students reasoning
Initially created 45 categories (i.e. single ideas)	Step 3: Label text segments with code to create caterories
Reduced overlap and redundancy in the code to 20 categories	Step 4: Review and reduce fist-level of coded with co-authors
Identify the final set of conceptual resources (4 categories)	Step 5: Aggregate similar codes into broader category
	Step 6: Create data structure to summarise categories