Studying qualitatively different conceptions:

A methodological comparison of phenomenography and The Model of Hierarchical Complexity

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Point of departure

The phenomenographic strand in research creates findings that “are remarkably similar to those of developmental researchers” (Dawson, 2004).

Phenomenography

- A qualitative method

- Developed by a research group in Department of Education at the University of Göteborg, Sweden, in early 1970.
- Ference Marton, Roger Säljö
- It was originally created to examine learning and pedagogical issues, but is used to examine experiences in a variety of domains.

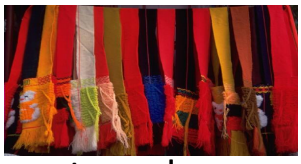
Aim

- Describing qualitatively different ways of experiencing, making sense of etc various phenomena.
- Discover the variety of meaning within a group rather than meaning of an individual.

Object of study

- The variation and change in capabilities for experiencing particular phenomena.
- These capabilities can, as a rule, be hierarchically ordered and "seen as more advanced, more complex, or more powerful than other capabilities" (Marton and Booth, 1997, p 111).

Data collection

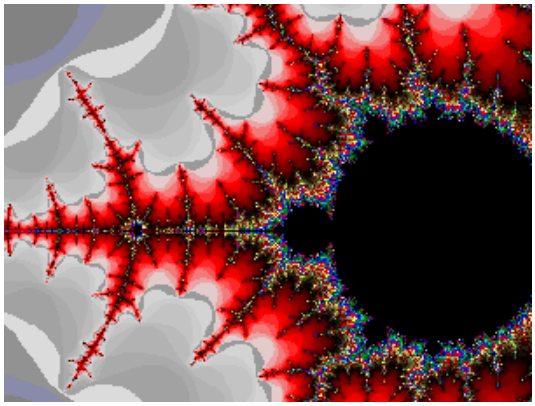


- Individual interviews are the most used
  – (N = 20)
- Possible to analyze group interviews, texts, artifacts

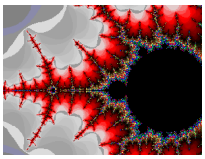
Data analysis

- Step 1 Categories of description
  (a set of descriptive categories)
- Step 2 An outcome space
  (categories are structured in relationship to each other, represent the wholeness)
  Hierarchical , logical, branching structures, etc

The Model of Hierarchical Complexity

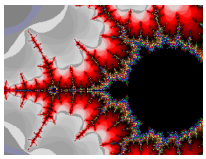


MHC



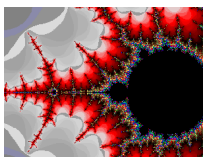
- A quantitative behavioral developmental theory
- Michael Lamport Commons and associates (Harvard)
- Developmental psychology → neo-Piagetian subfield of adult development → interdisciplinary used

Aim



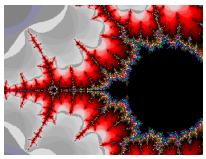
- A quantitative analysis of complexity in any setting
- The theory accounts for increases in complexity and enables measurement of these

Data collection



- Interviews
- Other data: texts, observations, all instances where information is organized

Data analysis

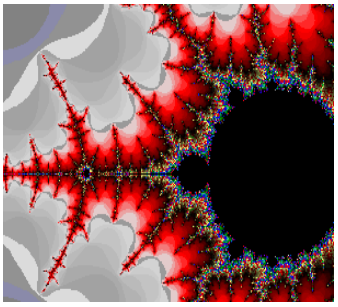


- Validated scoring procedures
- Measurement of stages of performance

- Step 1 Examine the structure, the hierarchical organization of information

- Step 2 Describe qualitative characteristics

Phenomenography &/or
The Model of Hierarchical Complexity

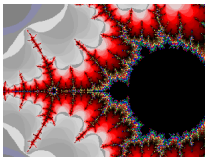


What we see in a group of people

Qualitative differences, often logically related

Some of these are better of more efficient

Normative element

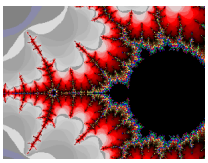


Different levels of complexity (abstract, formal & systematic)

Value neutral

Data analysis

- Discovery
- Leave it up to the individual researcher to find or invent complexity
- Uses developmental theory



- Measurement
- Described as a formal theory simply applied to the material.
- Complexity is seen in the material

Two views of complexity

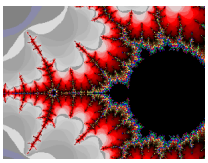
People sees the world differently, so there are different conceptions

The world is hierarcally ordered

Some of these can be explained hierarcially

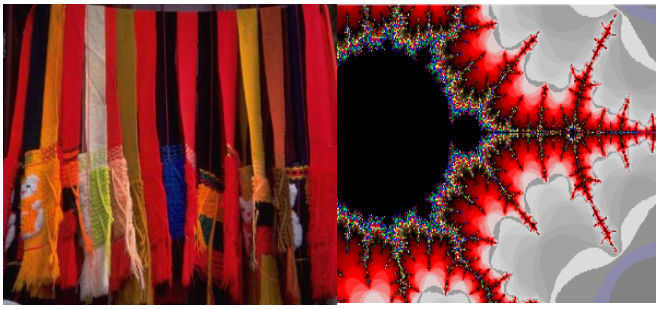
This results in different conceptions

Researcher skills



- Leave it up to individual to find hierarchical order
- Researchers leave out this part
- Is it possible for all people to score?

Phenomenography &
The Model of Hierarchical Complexity



Measurement of complexity

(a) Actions at a *higher order of hierarchical complexity*

(b) are themselves *defined* in terms of actions at the *next lower* order of hierarchical complexity;

(c) organize and *transform* the lower-order actions;

(b) produce organizations of lower-order actions that are new and *not arbitrary.*

- Are imposed or interåpreted by the researcher
- The analysis is for example performed with the help of SOLO taxonomy

Examples: The axioms in language

- I describe the kind of research that I do as developmental phenomenography because it is undertaken with the purpose of using the outcomes to help the subjects of the research, usually students, or others like them to learn.