

# A Quality Metric of QDA-Derived Theories using Object-oriented Modeling

## Summary

This thesis develops a quality metric for theories derived using qualitative data analysis. The metric value is calculated by interpreting a code system using object-oriented modeling and counting the number of syntax and semantic errors and normalizing it relative to the size of the code system. The metric is validated by comparison with human judgement on a sample set of code systems.

## Work Results

- Literature review
  - Qualitative data analysis in the social sciences, in particular interview analysis
  - Core concepts of object oriented modeling languages
- Research approach and execution
  - Definition of a simple object-oriented modeling language (parts of UML)
  - Application of concepts and relationships from that modeling language to three code systems
  - Derivation of types of concepts in code systems based on their relationships
  - Detection/counting of errors in code system (violations of syntax)
  - Determination of quality metric using this data
  - Validation of metric by user feedback (details to be determined)
- Research results
  - An object-oriented modeling language which can be applied to qualitative data
  - A new quality metric for code systems

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