

# CAQDAS in Teacher Education

## Computer aided qualitative data analysis software in Teacher Education

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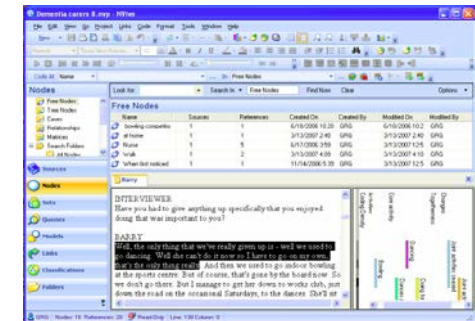
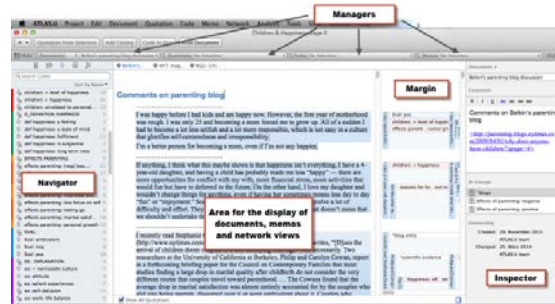
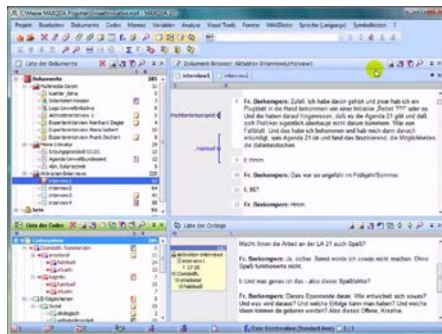
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„They ran their heads very hard against wrong ideas, and persisted in trying to ***fit the circumstances to the ideas***, instead of ***trying to extract ideas from the circumstances***“

Charles Dickens, „Great Expectations“, p.114 (Chapter 16), Penguin Popular Classics

# CAQDAS – Computer-aided qualitative data analysis software (Lee, Fielding 1995)



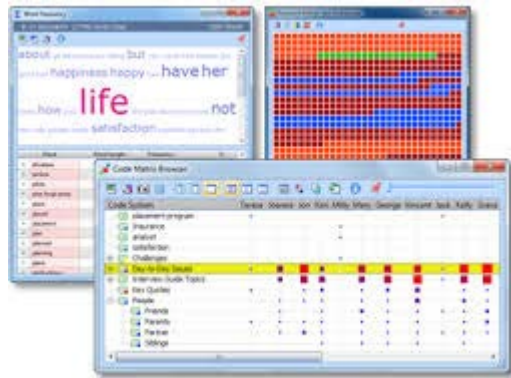
<http://www.maxqda.com/>

<http://www.atlasti.com/>

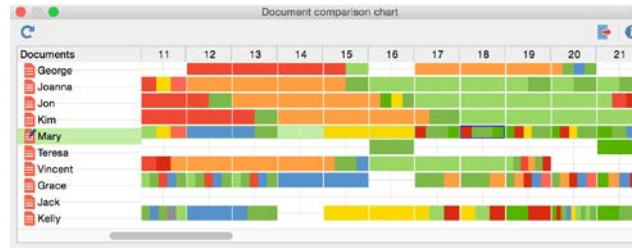
<http://www.qsrinternational.com/>

# Visual tools

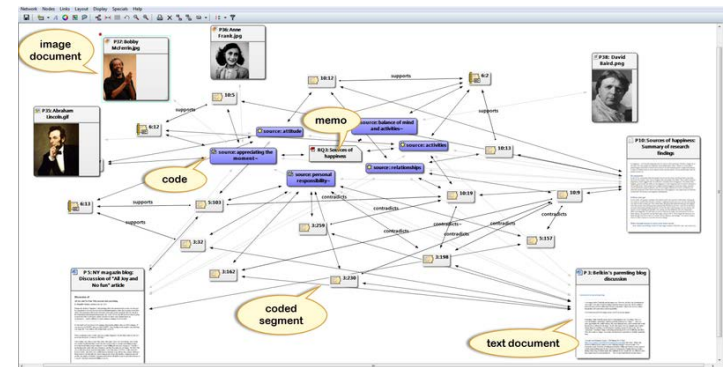
## document comparison



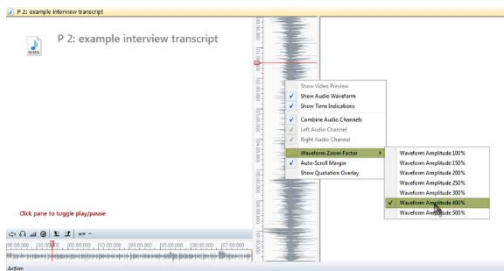
patterns



## networks



## audio



## Video



# Jumping into ...

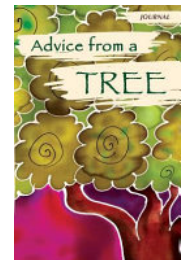
## Usage of CAQDAS

- scientific background
- individual experience

- Advice (supervisors, ...)
- „local“ traditions

rather than

- research logic
- research question based need
- initial design



# Software as ...

Software as an aid

→ manage big amount of data (prepaire/organise, analyse)

Software as a mean

→ to amplify/focus the methodical approach

Software as a methodological contributory factor

→ traceability, replicability, transparency, reproducibility

# CAQDAS considerations

## Key points

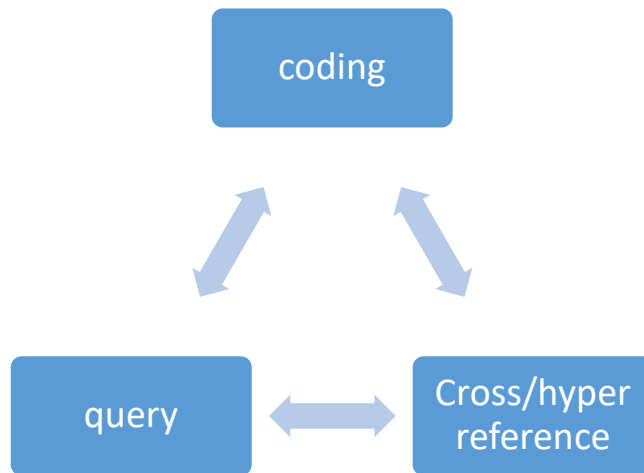
- Analysis is integral to every stage of the research process
- Analysis is inextricably linked to choices about methodology
- Adequate quality assurance
- CAQDAS can increase the researcher's capacity to analyse and theorise, but it cannot analyse data for you.

## Questions

- What is the theoretical, methodological and methodical approach?
- Which software fits best to the individual project?
- Who can support (best) an optimal application of the software?

# The core of CACDAS ...

- Hyperreference (linking text-segments)
- Search & query
- networks
- hierarchial structures
- qualitative-quantitative integration (mixed methods)



goal: identifying patterns  
→ it's (all) about counting  
→ it's (all) about networking



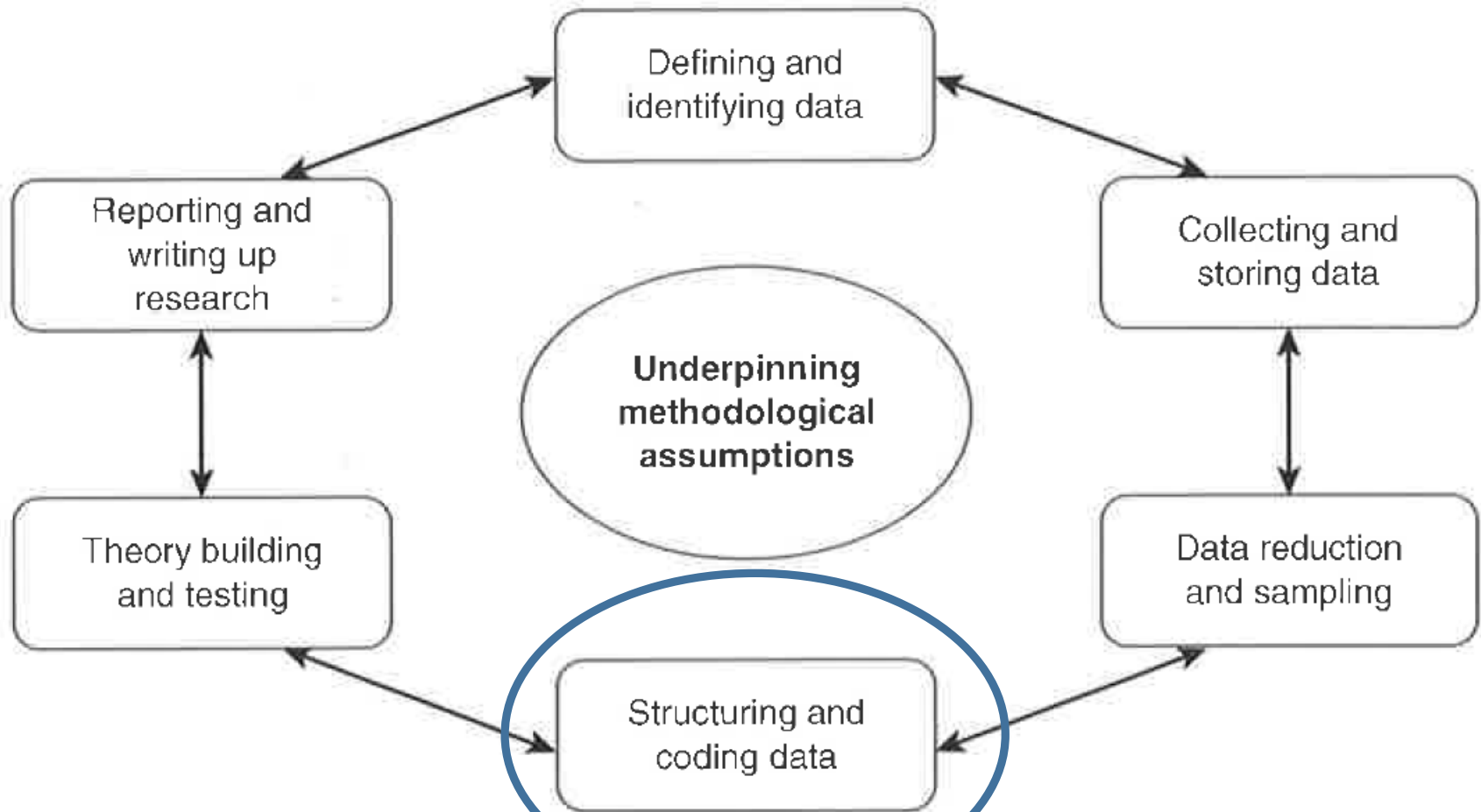


Figure 25.1 Six elements of qualitative data analysis

# Stages of Analysis

Stage	Purpose
<i>Codes</i>	Identifying anchors that allow the key points of the data to be gathered, Codebook
<i>Concepts</i>	Collections of <b>codes</b> of similar content that allows the data to be grouped
<i>Categories</i>	Broad groups of similar <b>concepts</b> that are used to generate a <i>theory</i>
<i>Theory</i>	A collection of categories that detail the subject of the research

# Strategies in data analysis

[https://www.youtube.com/watch?v=Dfd\\_U-24egg](https://www.youtube.com/watch?v=Dfd_U-24egg)

# Open Coding

- *What?*
- *Who?*
- *How?*
- *When? How long? Where?*
- *How much? How long?*
- *Why?*
- *What for?*
- *By which?*

# Example

... aims to identify, honor and publicize good schools

... is an annual competition across all 16 federal states (since 2006)



## The GERMAN SCHOOL AWARD

... aims to set quality benchmarks for good schools

Quality Criteria:  
Academic achievement; Approach to Diversity; Quality of Instruction; Responsibility; School Culture; School Development

... addresses all types of schools in the system

# Example

Gaining new findings about leadership for successful learning with a view towards theory building of successful leadership.

Collecting empirical data of how leadership can influence learning through a rich data base of successful schools (award procedure).



**Research into leadership for successful learning  
in Award winning schools  
OBJECTIVES OF RESEARCH**

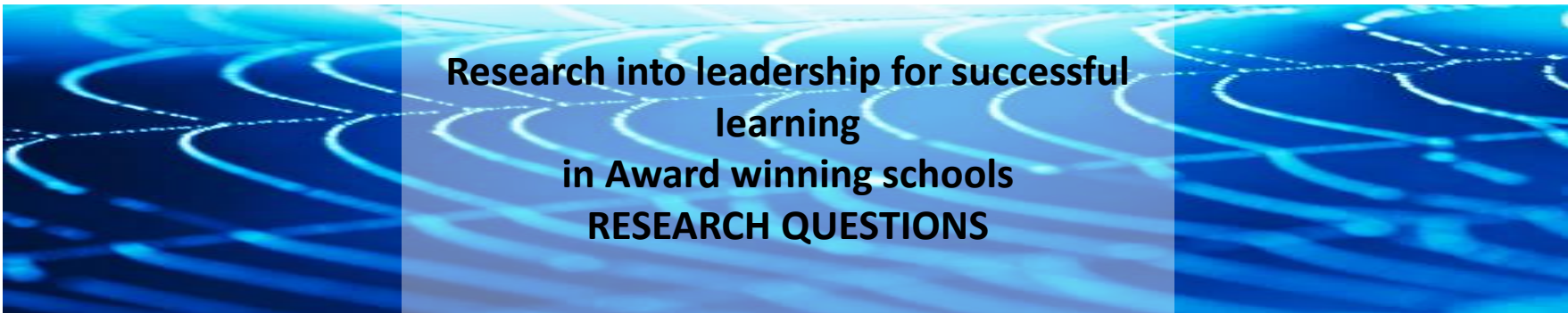
Getting new insights into how leaders can improve their professionalism and how qualification programmes can be improved with a view towards successful student learning.

Enriching the scientific discourse on the national level (German speaking countries) and internationally through experiences of leadership for successful learning.

# Example

How does leadership for successful learning show at the individual schools?

Which findings can be generalized and are transferable into other contexts?



**Research into leadership for successful learning  
in Award winning schools  
RESEARCH QUESTIONS**

What can be added to theory building on successful leadership from the research?

Which insights can be derived for the professionalization of school leaders?

What can school leaders learn from award winning schools for leading learning?

# Example

Semi-Structured Interviews with Teachers, Pupils, School Principal

Document Analysis:  
Application for GSA, Evaluation & Laudation of Jury of the GSA, Homepage, Articles, Speeches given by School Principals

**Research into leadership for successful learning  
in Award winning schools  
RESEARCH DESIGN**

Observations of Classroom Activities and School Principal

Vignettes (Schatz et al. 2012) and Anecdotes (Schatz et al. 2016)

Around 30 schools - three days in each school

Grounded Theory (Strauss 1991)



