# **TU-L0030 Qualitative Research Methods 3 ECTS**

Responsible teacher: Robin Gustafsson

**Status of the Course:** Doctoral Program in Science, optional course. Compulsory course for the students in the field of IEM. The course is open to other Aalto University doctoral students (i.e. from Aalto BIZ) and students from other universities as long as the size of class permits.

Level of the Course: Doctoral level

**Teaching Period:** Spring 2019, the confirmed dates are 20.5 (9-13), 21.5 (9-13), 22.5 (9-13), 23.5 (9-13), 27.5 (9-13), and 28.5 (9-13).

**Workload: 3 ECTS,** Time estimate for 3 ECTS module. Class participation 6\*4 hours=24 hours; Preassignments 6\*9.5 hours = 57 hours. An elective 3 ECTS advanced qualitative research methods module (i.e. hands on grounded theory method) can be organized on request.

Learning Outcomes: The goal of this course is to develop understanding and skills in qualitative research methods in industrial engineering and management research, specifically focused on qualitative research in the research areas of operation and service management, entrepreneurial leadership, and strategy and venturing, and how the results are usually presented in journal articles. The course covers most of the qualitative research methods techniques, for planning, conducting, analyzing and reporting, used in the top management journals, including inductive and abductive analysis, case study method, qualitative coding, interviewing, video recording, conducting observation and surveys, collecting and working with archival data, digitizing and working with digitalized qualitative data, and reporting (write-up) of qualitative research. The course is designed for both those interested in reading and evaluating research done with qualitative methods, and for those who already use or plan to use qualitative research methods in their own work. The number of credits varies between 3-6 depending on the assignments students choose to complete.

**Content:** The course will develop understand and skills in qualitative research methods, including inductive and abductive method, case study method, qualitative coding, interviewing, conducting observation and surveys, collecting and working with archival data, video-based analysis of social interaction, digitizing and working with digitalized qualitative data, and reporting (write-up) of qualitative research.

Assessment Methods and Criteria: Class participation, pre-class assignments, class assignments, and data analysis assignments. The course can be done either as a 3 credits course or as an extended 6 credit course with additional assignments. The 3 credits optional extensions will be organized around selected more indepth qualitative research methods based on students interests, i.e. working with digitized data, video analysis, and qualitative coding and writing up the analysis, in which one or two senior scholars will act as mentors for the student group (1-4 students) in their work with their own qualitative data.

Prerequisites: TU-L0000 Research Methods in Industrial Engineering and Management

**Grading Scale:** 1-5, 3 ECTS module: class participation 30% and pre-class assignments 70%.

**Registration for Courses:** The course is offered for doctoral students. For enrollment to course see instructions on course website. The course will be organized if at least four students have enrolled.

Language of Instruction: English

# **General Books on the Subject**

I warmly recommend you to get one of the following books to your reference library

- Berg, B. L. & Lune, H. (2014). Qualitative Research Methods for the Social Sciences. Boston: Pearson Education.
- Denzin, N, and Lincoln, Y. (2017). The SAGE handbook of qualitative research (5th ed.). Thousand Oaks, CA: Sage
- Flick, U. (2009). An Introduction to Qualitative Research, (4th ed.), Sage, London, UK.
- Marshall, C. & Rossman, G. B. (2015). Designing qualitative research (6th ed.) Thousand Oaks, CA: Sage.
- Patton, M.Q. (2014). Qualitative research & evaluation methods (4<sup>th</sup> ed.), Thousand Oaks, Sage Publications.
- Rossman, G. B., & Rallis, S. F. (2016). Learning in the field: An introduction to qualitative research (4<sup>th</sup> ed.) Sage.

#### **COURSE AGENDA 20.5-28.5.2019**

20.5.2019	SESSION 1: INTRODUCTION TO QUALITATIVE RESEARCH
9.00-13.00	SESSION I. INTRODUCTION TO QUALITATIVE RESEARCH
7.00 13.00	AGENDA
	Introduction to the course
	The course goal and structure
	Short presentation of participants
	Assignments and evaluation
	Introduction to Qualitative Research Methods
	The qualitative researcher
	• The different qualitative research approaches (incl. inductive, abductive, case studies, action research, ethnography, and historical)
	Presentations by students on insights from the papers
	Break
	Qualitative research design
	Sampling, measurement and operationalization in qualitative research settings
	Rigor in qualitative research (validity and reliability)
	Ethical questions in qualitative work
	Qualitative research questions (when, why, how, what)
	Break
	Class assignment on research questions
	Prepare one research question
	Present and discuss your research question with a fellow student
	Joint group discussion
	Wrap-up and next session

#### PRE-SESSION ASSIGNMENTS due 19.5 (23:59)

- Assignment 1
  - o Read the yellow highlighted article. We will build on it in class.
- Assignment 2
  - Pick one reading from the list below which interest you and prepare a slide summary (ppt/pdf) with the <u>key insights and points by you</u> for the article (1-2 slides) and be prepared to present the article
  - o Submit in course Dropbox

#### READINGS

#### General

- Alvesson, M., & Kärreman, D. (2007). Constructing mystery: Empirical matters in theory development. Academy of management review, 32(4), 1265-1281.
- Coughlan, P. and Coghlan, D. (2002) Action research for operations management, International Journal of Operations & Production Management, 22 (2), 220-240.
- Cunliffe, A. L. (2011). Crafting qualitative research: Morgan and Smircich 30 years on. Organizational Research Methods, 14(4), 647-673.
- Edmondson, A. C. & McManus, S. E. 2007. Methodological fit in management field research. Academy of Management Review, 32 (4): 1155-1179.
- Hackman, J.R. 2003. Learning more by crossing levels: Evidence from airplanes, hospitals, and orchestras. Journal of Organizational Behavior, 24, 905-922.
- Maclean, M., Harvey, C., & Clegg, S. R. (2016). Conceptualizing historical organization studies. Academy of Management Review, 41(4), 609-632.
- Van Maanen, J., Sorensen, J. B., & Mitchell, T. R. 2007. The interplay between theory and method. Academy of Management Review 32(4): 1145-1154.

# Rigor

- Combs, J. G. 2010. Big samples and small effects: Let's not trade relevance and rigor for power. Academy of Management Journal, 53(1): 9-13.
- Gephart, R. P. (2004) Qualitative Research and the Academy of Management Journal, Academy of Management Journal, 47 (4), 454-482.
- Halldórsson, Á, and Aastrup, J. (2003) Quality Criteria for Qualitative Inquiries in Logistics, European Journal of Operational Research, 144(2), 321-332.
- Tracy, S. J. (2010). Qualitative quality: Eight "big-tent" criteria for excellent qualitative research. Qualitative inquiry, 16(10), 837-851.

## **BOOKS ON THE SUBJECT**

- Creswell, J. 2012. Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.) Thousand Oaks, CA: Sage
- Lincoln, Y.S. & Guba, E.G. 1985. Naturalistic Inquiry. Newbury Park, CA: Sage.
- O'Leary, Z. (2005). Researching real-world problems: A guide to methods of inquiry. Sage.
- Hammersley, M., & Atkinson, P. (2007). Ethnography: Principles in practice. Routledge.

21.5.2018 9.00-13.00	SESSION 2: CASE STUDY METHODS
7.00 12.00	AGENDA
	Introduction to case study method  • What is a case?  • Case study methods  ○ Single case studies  ○ Comparative case studies  ○ Multiple case studies  ○ Nested cases  ○ Historical case studies  • Presentations by students on insights from the papers
	Break
	Case study designs  Research question Case selection and sampling Rigor in case studies Reveling cross-case patterns Validity and reliability Theorizing from cases Presentations by students on insights from the papers
	Break
	Deciphering the power of case analysis  • Discussion on insights from assignment 2  Designing a case study
	<ul> <li>Small group work</li> <li>Presentation and discussion of research designs</li> </ul>
	Wrap-up and next session
	PRE-SESSION ASSIGNMENTS due 20.5 (by 23:59)  • Assignment 1  ○ Read the yellow highlighted article. We will build on it in class.  • Assignment 2  ○ Pick one reading from the list below which interest you and prepare a slide summary (ppt/pdf) with the key insights and points by you for the article (1-2 slides) and be prepared to present the article  ○ Submit in course Dropbox  • Assignment 3  ○ Analyze the article: Santos, F. M., & Eisenhardt, K. M. (2009). Constructing markets and shaping boundaries: Entrepreneurial power in
	nascent fields. Academy of Management Journal, 52(4), 643-671.  Based on your analysis consider: (1) what you think makes the qualitative analysis powerful? (2) what are the potential challenges with the approach (3) how could you further strengthen the analysis?  Write up your answers as a one-page memo Submit it through MyCourses

#### READINGS

Readings on case study approaches

- Aastrup, J. and Halldórsson, Á. (2008) Epistemological role of case studies in logistics: A critical realist perspective, International Journal of Physical Distribution & Logistics Management, 38(10), 746-763.
- Barratt, M., Choi, T.Y. and Li M. (2011) Qualitative case studies in operations management: Trends, research outcomes and future research implications, Journal of Operations Management, 29, 329-342.
- Dubois, A. and Gadde, L.-E. (2002) Systematic Combining An Abductive Approach to Case Research, Journal of Business Research, 55, 553-560.
- Eisenhardt, K. M. (1989) Building Theories from Case Study Research, Academy of Management Review, 14(4), 532-550.
- Eisenhardt, K. M. & Graebner, M. E. 2007. Theory building from cases: Opportunities and challenges. Academy of Management Journal, 50(1), 25-32.
- Ketokivi, M., & Choi, T. (2014). Renaissance of case research as a scientific method. Journal of Operations Management, 32(5), 232-240.
- Small, M. L. (2009). How Many Cases Do I Need? On Science and the Logic of Case Selection in Field-Based Research." Ethnography 10, 5-38.

Readings aimed at clarifying case study approaches

- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. Qualitative inquiry, 12(2), 219-245.
- Siggelkow, N. 2007. Persuasion with case studies. Academy of Management Journal, 50, 20-24
- Dyer, W.G. & Wilkins, A.L. (1991) Better stories, Not better constructs, to generate better theory: a rejoinder to Eisenhardt, *Academy of Management Journal*, 16(3).

## **BOOKS ON THE SUBJECT**

• Yin, R. K. (2009): Case Study Research. Design and Methods, 4th edition, Sage, London, UK.

22.5.2018	SESSION 3: INTERVIEWS AND INTERVIEWING TECHNIQUES
9.00-13.00	
	AGENDA
	Interviewing
	When and why do interviews?
	Advantages and disadvantages of interviews
	Interviewing techniques
	Semi-structured, structured, open ended interviews
	Interview questions, exercise
	• F2F interviews, video interviewing, skype interviews, and phone interviews
	Interview styles
	The interview (warm up, interview, ending), exercise
	Ensuring quality interviews
	<ul> <li>Presentations by students on insights from the papers</li> </ul>

#### Break

#### Before and after the interview

- Contacting the interviewer
- After the interview
- Interview memos
- Writing up interviews
- Presentations by students on insights from the papers

#### Break

# Open-Ended Interview Approach for Studying Cognition and Emotion in Organizations, Natalia Vuori, Assistant Professor, Aalto University

- The open-ended interview approach
- What can interviews reveal about cognition and emotions
- A walk through of the nuts and bolts of an exemplary study

# Wrap-up and next session

# PRE-SESSION ASSIGNMENTS due 21.5 (by 23:59)

- Assignment 1
  - o Read the yellow highlighted article. We will build on it in class.
- Assignment 2
  - Pick one reading from the list below which interest you and prepare a slide summary (ppt/pdf) with the <u>key insights and points by you</u> for the article (1-2 slides) and be prepared to present the article
  - Submit in course Dropbox
- Assignment 3
  - Analyze the article: Vuori, N., Vuori, T. O., & Huy, Q. N. (2018). Emotional practices: how masking negative emotions impacts the post-acquisition integration process. Strategic Management Journal, 39(3), 859-893.
  - O Based on your analysis consider: (1) what you think makes the qualitative analysis powerful? (2) what are the potential challenges with the approach (3) how could you further strengthen the analysis?
  - Write up your answers as a one-page memo
  - Submit it through MyCourses

# READINGS

- Aberbach, J.D. and Rockman, B.A. (2002) Conducting and Coding Elite Interviews. Political Science and Politics 35 (4): 673-676
- Alvesson, M. (2003). Beyond neopositivists, romantics, and localists: A reflexive approach to interviews in organizational research. *Academy of management review*, 28(1), 13-33.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. Field methods, 18(1), 59-82.
- Morgan, D.L. (1996) Focus Groups. Annual Review of Sociology 22: 129-159
- Morris, Z.S. (2009) The Truth about Interviewing Elites. Politics 29 (3): 209-217
- Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. 2003. Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88: 879-903.
- Schwarz, N. 1999. Self-reports: How the questions shape the answers. American Psychologist, 54: 93-105.

	Vuori, T. O. (2017). An Open-Ended Interview Approach for Studying Cognition and Emotion in Organizations. In Methodological Challenges and Advances in Managerial and Organizational Cognition. 59-71. Emerald Publishing Limited.
ВОС	OKS ON THE SUBJECT
	• Weiss, R (1994) Learning from Strangers: The Art and Method of Qualitative
	Interview Studies, The Free Press (about qualitative interviewing)
	Babbie, E. 1990. Survey Research Methods. Belmont, CA: Wadsworth Publishing.

23.5.2018	SESSION 4: HISTORICAL AND PROCESS ANALYSES & ARCHIVAL DATA
9.00-13.00	
	AGENDA
	Historical and process analysis
	Historical analysis
	Process analysis, exercise
	Presentations by students on insights from the papers
	Class assignment
	Visualizing process and historical data
	Break
	Dream .
	Class assignment
	Analyzing sample archival sources
	Working with archival data, Zeerim Cheung, Aalto University
	Collecting and working with archival material
	Coding approaches
	Working practices
	Digitizing and working with digitalized qualitative data
	Presentations by students on insights from the papers
	Proof.
	Break
	Novel big data tools and methods, Qualitative comparative analysis
	Big data methods and large set of qualitative data
	Causal complexity and QCA
	Wyon un and novt sossion
	Wrap-up and next session
	PRE-SESSION ASSIGNMENTS due 22.5 (by 23:59)
	Assignment 1
	Read the yellow highlighted article. We will build on it in class.
	• Assignment 2
	o Pick one reading from the list below which interest you and prepare a slide
	summary (ppt/pdf) with the <u>key insights and points by you</u> for the article (1-2 slides) and be prepared to present the article
	<ul> <li>Submit in course Dropbox</li> </ul>
	Assignment 3
L	0

- Analyze the article: Pajunen, K. (2008). Institutions and inflows of foreign direct investment: A fuzzy-set analysis. Journal of International Business Studies, 39(4), 652-669.
- Based on your analysis consider: (1) what you think makes the analysis powerful?
   (2) what are the potential challenges with the approach (3) how could you further strengthen the analysis?
- O Write up your answers as a one-page memo
- Submit it through MyCourses

#### READINGS

#### Archival data

- Bowen, G. A. (2009). Document analysis as a qualitative research method. Qualitative research journal, 9(2), 27-40.
- Ray, J. L., & Smith, A. D. (2012). Using photographs to research organizations: Evidence, considerations, and application in a field study. Organizational Research Methods, 15(2), 288-315.
- Ventresca, M. J., & Mohr, J. W. 2002. Archival research methods. In J. A. C. Baum (ed.), The Blackwell Companion to Organizations. Malden, MA: Blackwell. Chapter 35, pp. 805-828.

#### Historical analysis

- Burgelman, R. A. (2011). Bridging history and reductionism: A key role for longitudinal qualitative research. Journal of International Business Studies, 42(5), 591-601.
- Decker, S., Kipping, M., & Wadhwani, R. D. (2015). New business histories! Plurality in business history research methods. Business History, 57(1), 30-40.
- Hansen, P. H. (2012). Business history: A cultural and narrative approach. Business History Review, 86(4), 693-717.
- Kipping, M., & Üsdiken, B. (2014). History in organization and management theory: More than meets the eye. The Academy of Management Annals, 8(1), 535-588.
- Rowlinson, M., Hassard, J., & Decker, S. (2014). Research strategies for organizational history: A dialogue between historical theory and organization theory. Academy of Management Review, 39(3), 250-274.
- Vaara, E., & Lamberg, J. A. (2016). Taking historical embeddedness seriously: Three historical approaches to advance strategy process and practice research. Academy of Management Review, 41(4), 633-657.

# Process analysis

- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management review*, 24(4), 691-710.
- Langley, A. N. N., Smallman, C., Tsoukas, H., & Van de Ven, A. H. (2013). Process studies of change in organization and management: Unveiling temporality, activity, and flow. Academy of Management Journal, 56(1), 1-13.
- Pettigrew, A.M. (1997): "What is a processual analysis", Scandinavian Journal of Management, 13, pp. 337-48.
- Pettigrew, A. M., Woodman, R. W., & Cameron, K. S. (2001). Studying organizational change and development: Challenges for future research. Academy of management journal, 44(4), 697-713.
- Åhlström, P., and, Karlsson, C. (2009): "Longitudinal field studies", in: Researching Operations Management, ed. Karlsson, C., pp. 196-235. Routledge, New York, USA.

#### Novel big data tools and methods

sourcebook (3<sup>rd</sup> ed.). Thousand Oaks, CA: Sage.

- Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. Academy of Management journal, 54(2), 393-420.
   George, G., Osinga, E. C., Lavie, D., & Scott, B. A. (2016). Big data and data science methods for management research. Academy of Management Journal, 59(5), 1493-1507.
   Guides to data scraping (skim): <a href="http://www.propublica.org/nerds/item/doc-dollars-guides-collecting-the-data">http://www.propublica.org/nerds/item/doc-dollars-guides-collecting-the-data</a>

   Misangyi, V. F., Greckhamer, T., Furnari, S., Fiss, P. C., Crilly, D., & Aguilera, R. (2017). Embracing causal complexity: The emergence of a neo-configurational perspective. Journal of Management, 43(1), 255-282.
   BOOKS ON THE SUBJECT
   Collecting Qualitative Data, G. Guest, E. Namey, M. Mitchell, (2013), Sage Publications
   Miles, M.B., Huberman, A.M. & Saldana, J. 2014. Qualitative data analysis: A methods
- 27.5.2018 **SESSION 5: QUALITATIVE DATA CODING AND ANALYSIS** 9.00-13.00 **AGENDA** Qualitative data analysis Qualitative and quantitative analysis of qualitative data Tools for the job: Data analysis software's The Gioia method Grounded theory analysis Analyzing qualitative data with multiple researchers Advancing reliability and validity in analysis Inter rater reliability Presentations by students on insights from the papers Coding qualitative data In class assignment coding qualitative data We will use the software package ATLAS/ti (<a href="http://www.atlasti.com">http://www.atlasti.com</a>) available on Aalto installed computers Break Discourse analysis, Professor Eero Vaara, Aalto University Why discourse analysis? What is discourse analysis? • How discourse analysis? Discourse analysis approaches A walk through of the nuts and bolts of an exemplary study Wrap-up and next session PRE-SESSION ASSIGNMENTS due 26.5 (by 23:59) Assignment 1 o Read the yellow highlighted article. We will build on it in class. Assignment 2

- O Pick one reading from the list below which interest you and prepare a slide summary (ppt/pdf) with the key insights and points by you for the article (1-2 slides)
- Submit in course Dropbox
- Assignment 3
  - O Analyze the article: Vaara, E., Sorsa, V., & Pälli, P. (2010). On the force potential of strategy texts: a critical discourse analysis of a strategic plan and its power effects in a city organization. Organization, 17(6), 685-702.
  - O Based on your analysis consider: (1) what you think makes the analysis powerful? (2) what are the potential challenges with the approach (3) how could you further strengthen the analysis?
  - O Write up your answers as a one-page memo
  - Submit it through MyCourses

#### READINGS

Qualitative coding, discourse analysis and grounded analysis

- Alvesson, M., & Karreman, D. (2000). Varieties of discourse: On the study of organizations through discourse analysis. *Human relations*, 53(9), 1125-1149.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. Organizational research methods, 16(1), 15-31.
- Leitch, S., & Palmer, I. (2010). Analysing texts in context: Current practices and new protocols for critical discourse analysis in organization studies. *Journal of Management Studies*, 47(6), 1194-1212.
- Suddaby, R. (2006) What Grounded Theory is Not, Academy of Management Journal, Vol. 49, No. 4, pp. 633-642.
- Vaara, E., Sonenshein, S., & Boje, D. (2016). Narratives as sources of stability and change in organizations: Approaches and directions for future research. The Academy of Management Annals, 10(1), 495-560.

## Exemplary studies

- Corley K. G., Gioia D. A. (2004). Identity ambiguity and change in the wake of a corporate spin-off. Administrative Science Quarterly, 49, 173–208.
- Monin, P., Noorderhaven, N., Vaara, E., & Kroon, D. (2013). Giving sense to and making sense of justice in postmerger integration. Academy of Management Journal, 56(1), 256-284.

## **BOOKS ON THE SUBJECT**

- Boje, D. M. (2001). Narrative methods for organizational & communication research.
   Sage.
- Strauss, A. & Corbin, J. (2014) Basics of Qualitative Research (4<sup>th</sup> ed.), Sage

28.5.2018	SESSION 6: MIXED METHODS & BRINGING IT ALL TOGETHER
9.00-13.00	
	AGENDA
	Mixed methods approaches
	Triangulation
	Qualitative and quantitative mixing
	Data reduction and causal inference

• Presentations by students on insights from the papers

#### Break

# Reporting inductive qualitative research

- Representation of data
- Developing figures and tables on qualitative data
- Preparing the manuscript for journal submission
- Presentations by students on insights from the papers

#### Break

## Brining the analysis together, Nina Granqvist, Associate Professor, Aalto University

- Introduction
- Induction and abduction
- Navigating between empirical findings, literature, and contribution
- Showcasing a process of writing an empirical qualitative study in a top management journal

## Wrap-up of the course

# PRE-SESSION ASSIGNMENTS due 27.5 (by 23:59)

- Assignment 1
  - o Read the yellow highlighted article. We will build on it in class.
- Assignment 2
  - O Pick one reading from the list below which interest you and prepare a slide summary (ppt/pdf) with the key insights and points by you for the article (1-2 slides)
  - o Submit in course Dropbox
- Assignment 3
  - O Analyze the article: Granqvist, N. & Gustafsson, R. 2016. Temporal Institutional Work. Academy of Management Journal, 59 (3): 1009-1035.
  - O Based on your analysis consider: (1) what you think makes the analysis powerful? (2) what are the potential challenges with the approach (3) how could you further strengthen the analysis?
  - O Write up your answers as a one-page memo
  - Submit it through MyCourses

## READINGS

The processes of qualitative inquiry

 Langley, A., & Abdallah, C. (2011). Templates and turns in qualitative studies of strategy and management. In Building methodological bridges (pp. 201-235). Emerald Group Publishing Limited.

Mixed methods design and approaches

- Cameron, R. (2009). A sequential mixed model research design: Design, analytical and display issues. International Journal of Multiple Research Approaches, 3(2), 140-152.
- Small, M. L. (2011) How to Conduct a Mixed Methods Study: Recent Trends in a Rapidly Growing Literature. Annual Review of Sociology 37: 55-84.

# Writing up the article

- Bansal, P., & Corley, K. (2012). Publishing in AMJ—Part 7: What's different about qualitative research?
- Pratt, M. 2009. From the editors: For the lack of a boilerplate: Tips on writing up (and reviewing) qualitative research. Academy of Management Journal, 52: 856-862.
- Weick, K. E. (2007). The generative properties of richness. The Academy of Management Journal, 50(1), 14-19.

# **BOOKS ON THE SUBJECT**

• Golden-Biddle, K. & Locke, C.D., Composing Qualitative Research, 2nd ed. Sage, 2006

# **OPTIONAL 3 ECTS MODULE**

Autumn 2019 / Winter 2020 Optional extensions around selected more in-depth qualitative research methods based on students' interests, i.e. working with digitized data, video analysis, and qualitative coding and writing up the analysis. The students selecting the optional model will inn consultation with the instructor search for one or two senior scholars to ask them for acting as mentors for the student group (1-4 students) in their work with the students own qualitative data.