A Mixed Methods Research Design

RQ: Which effects has the broad integration of sustainability into university teaching on affective attributes and (planned) behaviour for SD of students? What are Drivers and Barriers for Learning?

Design of Longitudinal Study
- Quantitative census survey, combined with group interviews
- Cohort 1: Start October 2012 (=T0)
- Cohort 2: Start October 2013 (=T0)
- n ~ 1600 students (each)
- Response rates ~40%
- 2 x 6 group interviews @ T1

Quantitative Study (extract)
- Attitudes
  - Sustainability Attitude (Shepard, Kuskova & Patzelt 2009)
  - Responsibility of actors (own scale)
  - Effectiveness of options to act for SD (own scale, I vs. others / high cost – low cost)
  - (Future-Oriented, anticipation (own scale))
- Knowledge & Understanding
  - Understanding of Sustainability (example)
- Self-Efficacy (focus of control) (Kovaleva, et al. 2012)
- Knowledge & Understanding
  - Character of sustainability knowledge (Stahl, Bromme 2008)
  - Understanding of Science (Inter- & Transdisciplinarity, Ethics (Special Eurobarometer 2010))
  - Understanding of Sustainability (SD, own scale, 4dim)
  - (Problem Knowledge, perception)
- Tolerance of complexity (Raddant, Dalbert 2007)
  - (Processing of information)
- Social competencies

Qualitative Study (extract)
- Points and types of measurements and data generation:
  - T1: Experiences, Expectations, previous knowledge
  - T2: Evaluation "Science bears Responsibility"* 
  - T3: Evaluation Choice Minor 
  - T4: Affective Attributes and reported planned behaviour 
  - T5: professional orientation 
  - T6: "Light"-version of questionnaire 
  - T6-Light-version of questionnaire 
  - T7: Reflection of Leuphana Semester, Processes of Learning, Motivations for Acting Sustainably 
  - T8: occupational/professional biography. Motivations for Acting Sustainably

Understanding of Sustainability (example)
- Question: Which aspects do you associate with sustainability? (22 items)
- Attitudes: e.g. Confrontation with quantitative study results
- Knowledge & Understanding: Further development, specification and validation
- Social competencies

Cases – The „Leuphana Bachelor“
- 30 CP Major Minor
- Complementary Studies: Disciplinary/Interdisciplinary
- Leuphana Semester: Science bears responsibility

Contact
Simon Burandt, PhD
Anna Sundermann

Leuphana University Lüneburg
UNESCO CHAIR in Higher Education for Sustainable Development

Anna Sundermann
simon.burandt@leuphana.de
anna.sundermann@leuphana.de
www.leuphana.de/unesco-chair