

SEEP SYLLABUS

Course title:	Quantitative and Qualitative Methods - Track “Agent Based Modelling”			
Teacher(s):	Barbara Haas, Manuel Scholz-Wäckerle			
Course credit:	ECTS: 10		Hours per week: 4	
Semester	<input type="checkbox"/> S1	<input checked="" type="checkbox"/> S2	<input type="checkbox"/> S3	<input type="checkbox"/> S4
Expected prior knowledge	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	
Teaching method(s):	Lectures, group exercises, debates and interactive methods			
Type(s) of evaluation:	<input checked="" type="checkbox"/> Exam		<input checked="" type="checkbox"/> Written report	
	<input checked="" type="checkbox"/> Participation / Presentation		<input checked="" type="checkbox"/> Group project	
	<input type="checkbox"/> Other	Home assignments and blended learning		
Short course description	<p>This course on qualitative and quantitative research methods will provide a general introduction about 1) methodological underpinnings of research methods 2) research designs 3) different forms of methods 3) field analysis 4) modelling and simulation and finally about 5) the combination of quantitative and qualitative approaches. The course focuses on differences and similarities in both methods. Moreover, we discuss quality assessment and possibilities of potential synthesis among different approaches in a fruitful manner.</p> <p>On the one hand, students will get introduced into contemporary discourses on methods by carrying out and presenting literature reviews as well as results in own data analysis. On the other hand, they will carry out individual programming exercises in NETLOGO and experiment with some basic examples from field analysis and modelling/simulation (Computational Social Science), thereby building foundational knowledge for a further applied deepening in the winter term.</p>			
Topics (summary keywords)	<p>Week 1) Introduction to the course and assignments; Basic intro to complexity theory</p> <p>Week 2-5) Introduction to ABM with programming in Netlogo</p> <p>Week 6-7) qualitative interviews</p> <p>Week 7-8) qualitative focus groups</p> <p>Week 9-10) qualitative (non-)participant observation</p> <p>Week 11) Mixed Methods Design</p> <p>Week 12) qualitative data analysis</p> <p>Week 13) summary and outlook</p>			
Selected readings:	<p>Additional Literature for the Quantitative Part:</p> <p>Elsner W., Heinrich T. and Schwardt H. (2015), The Microeconomics of Complex Economies: Evolutionary, Institutional, Neoclassical, and Complexity Perspectives, Academic Press.</p> <p>Gilbert N. (2008), Agent-based models, Sage Publications, series: Quantitative applications in the social sciences.</p> <p>Gilbert N. and Troitzsch K.G. (2005), Simulation for the Social Scientist,</p>			

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Hamill, L. and Gilbert, N. (2016), *Agent-Based Modelling in Economics*, Wiley.

Holland, J.H. (1998), *Emergence. From Chaos to Order*, Oxford University Press.

Kauffman, S. (1993), *The Origins of Order: Self-Organisation and Selection in Evolution*, Oxford University Press.

Miller J.H. and Page S.E. (2007), *Complex Adaptive Systems: An Introduction to Computational Models of Social Life*, Princeton University Press.

Railsback St.F. and Grimm V. (2012), *Agent-Based and Individual-Based Modeling*, Princeton University Press.

Simon H.A. (1962), The architecture of complexity, *Proceedings of the American Philosophical Society* 106 (6): 467-482.

Wilensky U. and Rand W. (2015), *An introduction to agent-based modelling: Modeling natural, social, and engineered complex systems with Netlogo*, MIT Press.

Qualitative Literature

Brinkmann, S., & Kvale, S. (2015). Seven Stages of an Interview Investigation (Part II). In S. Brinkmann & S. Kvale (Eds.), *InterViews. Learning the craft of qualitative research interviewing* (pp. 123-166). Los Angeles, London, New Delhi, Singapore, Washington DC: Sage.

Clark, V., L. Plano, & Badiie, M. (2010). Research Questions in Mixed Methods Research. In A. Tashakkori & C. Teddlie (Eds.), *Mixed Methods in Social & Behavioral Research* (pp. 275-304). Los Angeles/London/New Delhi/Singapore/Washington DC: Sage Publications.

Leech, N., L. (2010). Interviews with the early developers of mixed methods research. In A. Tashakkori & C. Teddlie (Eds.), *Sage Handbook of Mixed Methods in Social & Behavioral Research* (pp. 253-272). Los Angeles/London/New Delhi/Singapore/Washington DC: Sage.

Lueger, M., Sandner, K., Meyer, R., & Hammerschmid, G. (2005). Contextualizing Influence Activities: An Objective Hermeneutical Approach. *Organization Studies*, 26(8), 1134-1168.

Ritchie, J., Spencer, L., & O'Connor, W. (2012). Carrying out Qualitative Analysis. In J. Ritchie & J. Lewis (Eds.), *Qualitative Strategies. A Guide for Social Science Students and Researchers* (pp. 219-262). London, Los Angeles, New Delhi, Singapore, Washington DC: Sage.

Scheibelhofer, E. (2008). Combining Narration Based Interviews with Topical Interviews: Methodological Reflections on Research Practices. *International Journal of Social Research Methodology*, 11(5), 403-416.

Silverman, D. (2011). Data Analysis. In D. Silverman (Ed.), *Interpreting Qualitative Data* (pp. 57-86). London/Thousand Oaks/New Delhi/Singapore: Sage Publications.

Trinczek, R. (2009). How to Interview Managers? Methodical and Methodological Aspects of Expert Interviews as a Qualitative Method in Empirical Social Research. In A. Bogner, B. Littig, & W. Menz (Eds.), *Interviewing Experts* (pp. 203-216). Houndsmills /Basingstoke: Palgrave

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Macmillan.

Vanderstoep, S., W, & Johnston, D., D. (2009). *Research Methods for Everyday Life*. San Francisco: Jossey-Bass.

Whyte, W. F. (1993 [1943]). *Street Corner Society. The Social Structure of an Italian Slum*. Chicago and London: The University of Chicago Press.