

Introduction to Entrepreneurship Research (PhD level)

General information:

- Instructors:** Oliver Alexy, Nicola Breugst, Anne Tryba, Holger Patzelt, Siddharth Vedula, Amy Zhao-Ding
- Format:** The course is designed as a ‘full immersion’ experience. On the one hand, we focus on issues around theory and the process of theorizing, such as the design of the research question, its embedding in an academic conversation, and the dos and don’ts of making theoretical contributions. On the other hand, we focus on the execution of the research question, including research methods and research design. Also, questions around the PhD process and academic careers will be tackled together. By immersing participants in such a “boot-camp” for entrepreneurship research, the intensive experience condensed in 1.5 weeks will have long term pay-offs when it comes to pre-empting many questions and uncertainties that arise during a thesis-writing process. The course is worth 6 ECTS.
- Audience:** Beginning doctoral candidates from all fields of study, who have had limited prior exposure to issues such as general research design and thesis development, with special interest in the entrepreneurship field. **Note: the course is mandatory for all TUM ERI doctoral candidates. To ensure quality of discussion, the course is limited to 15 participants.**
- Prerequisites:** **All participants must prepare draft answers to Assignments #1-#4 for each day of study** (see “Class outline”). Per assignment, these answers should comprise 1 page of text (12 pt., Times New Roman, 1” margin, single-spaced) to be submitted **before** the first day of class. During the course, participants will merge the updated drafts into a proposal. **Assignment #5** is only due **after the course** (deadline discussed with your advisors), but you will benefit from reflecting about it before and during the course.
- Application:** All eligible and interested doctoral candidates should send one or two motivation paragraphs (state your current stage, planned progress in your PhD, and research interests) and current CV to Siddharth Vedula, **before August 15, 2024** (siddharth.vedula@tum.de).
- Location:** We will meet in person at the Entrepreneurship Research Institute building in Garching (room TBD). Feedback meetings with individual professors may be conducted online (e.g. via zoom) based on availability.
- Grading:** **All participants (including those from TUM) will be pass/fail graded based on course participation, presentations given, and proposal handed in.** For participants that require an actual grade for this class, please get in touch with us beforehand to discuss modalities. We will attempt to give every participants the opportunity to present on all topics covered (see “Course outline” for presentation schedules and topic). Presentations may happen in groups, and should never be longer than 10 minutes (this will eventually depend on the number of course participants). The proposal is described in Assignment #5 (see “Course outline”).

Course aims

The aim of this course is to provide participants with a broad overview of both content and process issues central to entrepreneurship research. The course is interactive in nature and demands participants' preparation and active engagement during and between class sessions.

Knowledge Objectives

Participants will be exposed to essential process-related concepts underlying research activity in management / social sciences and explore them in more detail within the context of the field of entrepreneurship. Specific knowledge goals of the course include, but are not restricted to:

- Understanding what makes for a good research question and developing the ability to identify promising research questions for own thesis and further research projects
- Understanding what constitutes an academic conversation in the field of entrepreneurship and identification of key theoretical paradigms in the field – especially as they relate to participants' own research question field. Accordingly, upon completing this course, participants should have in hand a broad survey of key literature that informs their dissertation-related literature inquiry going forward.
- Ability to understand appropriateness, relevance and possible trade-offs of research methods available for addressing identified research questions.
- Ability to appreciate the intricacies of a solid research design, as they relate to identifying sources of data, collecting and analyzing data, designing questionnaires / interviews, operationalizing key constructs – especially as they relate to the participant's research question.
- General stronger ability to engage in a research conversation and a key set of skills in advancing own research program during doctoral studies.

Skills Objectives

- Improve diagnostic and analytical skills
- Enhance verbal skills via class and group discussions
- Build up critical thinking and interpretation skills
- Gain confidence in embarking on own thesis writing process

Course logistics, preparation, and readings

This course requires participants' **advanced preparation** in terms of (1) reading the obligatory readings (list provided at the end of this document) and (2) submitting draft answers to the assignment questions. While an important part of the course experience will consist of participants' ongoing discovery of the important literature (both in terms of theory and methods), it is essential that all participants are able to start the course with a basic understanding of the field's development and their own plans. Please note that the course will be demanding: **You are required to complete all assigned readings before the beginning of the course and to continuously revise your draft proposal throughout the course. Because of these time-intensive revisions, not all days include content sessions from morning to evenings. Please make use of this extra time.**

Course procedures

To make this class a success for everyone, we need you to prepare for class and participate in class. Put concisely: how much you take away from this class and contribute to classmates correlates directly with the effort you put in completing class assignments.

We hope that this class will provide you with a highly enjoyable learning process. While this syllabus represents our “classroom contract”, we trust that you will share our belief that we can learn from each other in rich discussions in and outside of the classroom. We will do our best to facilitate an interesting and rounded discussion conducive to a learning environment. At the same time, we expect from you proactive preparation and active participation, with a healthy dose of humor and good spirit. We also appreciate your specific research interests, opinions and constructive feedback, and (within the course structure boundaries), we will do our best to make the class contribute to your learning process. Finally, we find entrepreneurship to be a fascinating field, and are delighted to meet and share ideas with a group of diverse and interesting individuals whose ideas could shape the way our understanding, thinking and knowledge evolves in the future. We hope you find that as exciting as we do.

Course overview

(Subject to change, always with participants’ learning progress in mind.)

Week 1

Date	Title	Topics
Sept 16, 9:00 to 13:00	The Research Question and the Conversation Metaphor	Intro
		Research questions
Sept 16, 14:00 to 18:00		<i>Students ice-breaking and preparing research question</i>
Sept 17, 9:00 to 13:00	The Role of Theory in Joining the Research Conversation	Student presentations
		Connecting RQ & Theory
Sept 17, 14:00 to 18:00		Theory: What is it, why is it important
		Levels of theorizing and boundary conditions
		The review process: Constructive criticism in academia
Sept 19, 9:00 to 13:00	Choosing your Weapon: Understanding Different Research Methods	Student presentations
		Research methods: Experiments
Sept 19, 14:00 to 18:00		Research methods: Quantitative research
		Research methods: Qualitative research
Sept 20, 9:00 to 13:00	Reflection and Feedback	<i>Opportunity for feedback meetings with Prof. Breugst</i>
Sept 20, 14:00 to 18:00		<i>Opportunity for feedback meetings with Prof. Patzelt</i>

Week 2

Date	Title	Topics
Sept 23, 9:00 to 10:30	Executing Your Research Project	Research design and execution: Primary vs. secondary data collection
Sept 23, 11:00 to 12:30		Research design and execution: Construct operationalization
Sept 23, 14:00 to 15:30		Research methods-Student presentations
Sept 23, 16:00 to 18:00		<i>Opportunity for feedback meetings with Prof. Vedula</i>
Sept 24, 09:00 to 10:30	Novel Methods and “Grand Challenge” Topics in Ent Research	<i>Opportunity for feedback meetings with Prof. Tryba</i>
Sept 24, 11:00 to 12:30		LDA topic modeling methods
Sept 24, 14:00 to 16:00		QCA methods
Sept 24, 16:00 to 18:00		Sustainability and entrepreneurship
Sept 25, 9:00 to 13:00	Wrapping up	<i>Opportunity for feedback meetings with Prof. Amy Zhao-Ding</i>
		<i>Opportunity for feedback meetings with Prof. Alexy</i>
Sept 25, 14:00 to 18:00		Student presentations
Post-seminar	Reflection	<i>Students preparing questions for seniors and reflecting on work habits and goals</i>

Course outline

(Subject to change, always with participants’ learning progress in mind.)

Day 1 – Monday, September 16, 2024: The Research Question and the Conversation Metaphor

09:00 – 10:30 Overall Course Introduction/Kickoff (Prof. Vedula)

11:00 – 13:00 Research Questions & Problem Formulation: Lecture (Prof. Zhao-Ding)

Assignment #1: Prepare before coming to course, refine after Day 1

Immerse yourself into the relevant literature of interest to your research. This process should serve as a starting point both to understand what makes interesting research questions, and then generating your own. Accordingly, for Day 1, each participant is expected to bring to class 2-3 examples of interesting research questions (or actual research question if you have started) and 5 most important papers that informed these research questions. You will be expected to present and be able to discuss:

a) What makes your research question(s) novel, relevant and interesting?

- b) To what extent have the questions been answered by findings in earlier papers? How can your research extend them? If you had the opportunity to talk to the authors of one of these articles, why should they believe that your work holds the potential to extend theirs?
- c) Reflecting on the 5 most important papers you identified:
 - i. How did the authors of these articles translate their research question(s) into propositions / testable hypotheses?
 - ii. Which key theories drove / informed their research questions?
 - iii. How did the research questions proposed translate into final contributions?

Day 2 – Tuesday, September 17, 2024: The Role of Theory in Joining the Conversation

09:00 – 10:30 Theory: What is it, why is it important (Prof. Alexy)

11:00 – 12:30 Theory: Levels of theorizing and boundary conditions (Prof. Alexy)

14:00 – 15:30 Research question presentations and discussion (Prof. Vedula)

16:00 – 17:30 Academic review process/constructive criticism as part of the conversation (Prof. Vedula & Prof. Breugst)

Assignment #2: Prepare before coming to course, update during and after Day 2

Participants should pick 2-3 papers that have made significant theoretical contributions from their most important 5 that inform their research questions (or other theoretical or “classic” readings that propose influential theoretical perspectives). You are expected to present:

- a) Core tenets / relationships of a theoretical view central to your work
- b) At which level does the theory operate (e.g., Individual? Firm? Field?)
- c) What are the key assumptions and boundary conditions of this theory?
- d) If working with this theory, which people in the field are you really talking to (try and name some names)? What would you ask them if you met them for a coffee to extend that conversation?
- e) Updated research question in light of the theory

Day 3 – Thursday, September 19, 2024: Choosing your Weapon: Understanding Different Research Methods

09:00 – 10:30 Research methods: Quantitative research (Prof. Patzelt)

11:00 – 12:30 Research methods: Qualitative research (Prof. Patzelt)

14:00 – 15:30 Theoretical perspectives – presentations of all participants (Prof. Breugst)

16:00 – 17:30 Research methods: Experimental research (Prof. Breugst)

Note: Throughout the day, we will strongly emphasize the topic of research ethics.

Assignment #3: Prepare before coming to course, update during and after Day 3

Following exposure to different lectures on research methods, participants should think about how they might approach investigating their own research question in terms of methodological approaches. Specifically, each participant should think about 2 approaches that might be most appropriate to explore their chosen research question. The following day, participants should be ready to present:

- a) Refined research question
- b) At which level the data need to be collected (e.g. Individual? Team? Firm? Field?)

- c) Two chosen methodological approaches (and why these are chosen). Ideally, you identify one rather recent and perhaps even unconventional method that you could use
- d) Compare and contrast the two approaches on research rigor and practical considerations

Day 4 – Friday, September 20, 2024: Optional Individual Meetings

09:00 – 13:00 Opportunity to arrange individual meetings with Prof. Breugst

14:00 – 18:00 Opportunity to arrange individual meetings with Prof. Patzelt

Day 5 – Monday, September 23, 2024: Executing Your Research Project

09:00 – 10:30 Research design and execution: Primary vs. secondary data collection (Prof. Tryba)

11:00 – 12:30 Research design and execution: Construct operationalization (Prof. Tryba)

14:00 – 15:30 Research methods – presentations of all participants (Prof. Tryba, Prof. Patzelt)

Assignment #4: Prepare before coming to class, update during and after Day 5

Following exposure to different lectures on research design, participants should think about how they might approach operationalizing key constructs in their own study. Specifically, each participant should review the literature for potential operationalizations of at least 2 key constructs, including finding possible interview questions / guidelines (for qualitative research), scales (for primary data collection), proxies (for secondary data), or even look into possibilities using experimental approaches and relevant manipulations. The following day, participants should be ready to present:

- a) Sources for data collection – what would be the ideal source of data and how could you collect it? Are there any unconventional or unused sources that you could rely on?
- b) Operationalizations (make sure to be precise and cite original sources / have examples ready)
- c) Trade-offs in terms of construct validity and reliability of the measure
- d) Choose which operationalization to follow and suggest potential improvements

16:00 – 18:00 Opportunity to arrange individual meetings with Prof. Vedula

Day 6 – Tuesday, September 24, 2024: Special Topics (Novel Methods and “Grand Challenges” in ENT)

09:00 – 10:30 Opportunity to arrange individual meetings with Prof. Tryba

11:00 – 12:30 LDA topic modeling methods (Prof. Zhao-Ding)

14:00 – 15:30 QCA methods (Prof. Vedula) (online via zoom)

16:00 – 18:00 Sustainability and entrepreneurship (Prof. Vedula) (online via zoom)

Day 7 – Wednesday, September 25, 2024: Wrapping up

09:00 – 10:30 Opportunity to arrange individual meetings with Prof. Zhao-Ding

11:00 – 12:30 Opportunity to arrange individual meetings with Prof. Alexy

14:00 – 18:00 Final presentations of all participants

Assignment #5: Prepare before and update throughout and after the course; submit to your advisors:

Prepare a list of questions you would like to ask senior PhD students and faculty members about research process, milestones, and work habit; practice goal-setting with personal action plan for the next 3 months, 6 months, 1 year, and so on in categories of research, teaching and service

Synthesize all key learnings (i.e., the updated assignments) into a PhD proposal of (max.) five-page (12 pt. Times New Roman, single-spaced, 1" margins). This proposal should include:

- **A clearly articulated research question: New, interesting, and relevant to a conversation**
- **The empirical execution strategy**
- **The expected findings, and the theoretical contributions this would allow you to make**
- **The problems you expect to encounter and how you would solve them**

Obligatory Readings:

Once you are registered for the course, we will sign you up for its e-learning site—we will provide the more difficult-to-access articles there, and in particular the book chapter. **We expect that you have read all these articles before the respective session of the course.** Ideally, you should have scrutinized all of these articles thoroughly before class, so that you are fully capable of discussing their content.

Day 1 – Monday, September 16, 2024

Research questions:

- Sandberg, M. & Alvesson, M. 2011. Ways of constructing research questions: gap-spotting or problematization? *Organization*, 18(1): 23-44.
- Alvesson, M & Sandberg, J. 2011. Generating research questions through problematization. *Academy of Management Review*, 36(2): 247-271.

The mindset and heuristics for writing entrepreneurship research papers:

- Shepherd, D.A., & Wiklund, J. (2020). Simple rules, templates, and heuristics! An attempt to deconstruct the art of crafting and entrepreneurship paper. *Entrepreneurship Theory and Practice*, 44(3), 371-390.
- Shepherd, D.A. & Patzelt, H. (2023). Lean scholarship. *Small Business Economics*, 60(3), 843-863.

Research problem formulation:

- Lave, C.A, & March, J.G (1993) *An Introduction to models in the social sciences*, pp. 1-85, University Press of America, Lanham, MD

Day 2 – Tuesday, September 17, 2024

On theory:

Be prepared to answer: what is theory? What does 'interesting' mean? Does good theory have to be interesting?

- Sutton, R. & Staw, B. 1995. What theory is not. *Administrative Science Quarterly*, 40: 371-384.
- Weick, K. 1995. What theory is not, theorizing is. *Administrative Science Quarterly*, 40: 385-390.
- DiMaggio, P. 1995. Comments on "what theory is not." *Administrative Science Quarterly*, 40: 391-397.
- Davis, M. 1971. That's interesting! *Philosophy of the Social Sciences*, 1: 309-344 (Only Part I)

Day 3 – Thursday, September 19, 2024

Qualitative research:

- Eisenhardt, K. M. & Graebner, M. E. 2007. Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1): 25-32.
- Eisenhardt, K. M. 1989. Building theories from case study research. *Academy of Management Review*, 14(4): 532-550.
- 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.

Quantitative research:

- Anderson, B. S., Wennberg, K., & McMullen, J. S. (2019). Enhancing quantitative theory-testing entrepreneurship research. *Journal of Business Venturing*, 34(5), 105928.
- Wennberg, K., & Anderson, B. S. (2020). Enhancing the exploration and communication of quantitative entrepreneurship research. *Journal of Business Venturing*, 35(3), 105938.

Experimental research:

- Stevenson, R., Josefy, M., McMullen, J. S., & Shepherd, D. (2020). Organizational and management theorizing using experiment-based entrepreneurship research: Covered terrain and new frontiers. *Academy of Management Annals*, 14(2), 759-796.
- Grégoire, D. A., Binder, J. K., & Rauch, A. (2019). Navigating the validity tradeoffs of entrepreneurship research experiments: A systematic review and best-practice suggestions. *Journal of Business Venturing*, 34(2), 284-310.

Day 5 – Monday, September 23, 2024

- Maula, M., & Stam, W. (2020). Enhancing rigor in quantitative entrepreneurship research. *Entrepreneurship Theory and Practice*, 44(6), 1059-1090.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual review of psychology*, 63(1), 539-569.
- Tryba, A., Patzelt, H., & Breugst, N. (2023). Knowledge diversity and venture growth: The contingent effects of early planning and experimentation. *British Journal of Management*, 34(1), 343-362.

Day 6 – Tuesday, September 24, 2024

LDA topic modeling methods:

- Hannigan, T., Haans, R. F. J., Vakili, K., Tchalian, H., Glaser, V., Wang, M., Kaplan, S., & Jennings, P. D. (2019). Topic Modeling in Management Research: Rendering New Theory From Textual Data. *Academy of Management Annals*, 13(2), 586-632. <https://doi.org/10.5465/annals.2017.0099>
- Haans, R. F. J. (2019). What's the value of being different when everyone is? The effects of distinctiveness on performance in homogeneous versus heterogeneous categories. *Strategic Management Journal*, 40(1), 3-27. <https://doi.org/10.1002/smj.2978>
- Corritore, M., Goldberg, A., & Srivastava, S. B. (2020). Duality in Diversity: How Intrapersonal and Interpersonal Cultural Heterogeneity Relate to Firm Performance. *Administrative Science Quarterly*, 65(2), 359-394. <https://doi.org/10.1177/0001839219844175>

QCA methods:

- Fiss, Peer C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal*, 54.2: 393-420.

- 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.
- Furnari, S., Crilly, D., Misangyi, V. F., Greckhamer, T., Fiss, P. C., & Aguilera, R. V. (2021). Capturing causal complexity: Heuristics for configurational theorizing. *Academy of Management Review*, 46(4), 778-799.

Sustainability and Entrepreneurship:

- Vedula, S., Doblinger, C., Pacheco, D., York, J., Bacq, S., Russo, M., & Dean, T. (2021). Entrepreneurship for the Public Good: A Review, Critique, and Path Forward for Social and Environmental Entrepreneurship Research. *Academy of Management Annals*, 16(1), 391-425
- Johnson, M. P., & Schaltegger, S. (2020). Entrepreneurship for sustainable development: A review and multilevel causal mechanism framework. *Entrepreneurship Theory and Practice*, 44(6), 1141-1173.
- Gupta, P., Chauhan, S., Paul, J., & Jaiswal, M. P. (2020). Social entrepreneurship research: A review and future research agenda. *Journal of Business Research*, 113, 209-229.

After class Readings:

On crafting a paper:

Series of editorial articles on “Publishing in AMJ” (*totaling 30 pages*) provide great guidance in paper writing.

- Part 1: Topic choice (Colquitt, J.A., George, G.)
- Part 2: Research design (Bono, J.E., McNamara, G.)
- Part 3: Setting the hook (Grant, A.M., Pollock, T.G.)
- Part 4: Grounding hypotheses (Sparrowe, R.T., Mayer, K.J)
- Part 5: Crafting the methods and results (Zhang, Y., Shaw, J.D.)
- Part 6: Discussing the implications (Geletkanycz, M., Tepper, B.J.)
- Part 7: What’s different about qualitative research? (Bansal, P., Corley, K.)
- Part 8: Publishing in AMJ for non-US authors (George, G.)