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Integration of Practice-Related Empirical Research Projects in International Postgraduate Studies: A Case of the Master Program in Development Management

Anne Siebert, Henrike Roth
Institute of Development Research and Development Policy, Ruhr-University Bochum, Germany.

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Abstract

This paper engages with student-led empirical social research and the integration into the study curricula. The purpose of this work is twofold. First, we highlight the relevance of integrating practice-related research projects into postgraduate studies. Second, we illuminate this with the case of the English-language MA programme in Development Management offered at the Institute of Development Research and Development Policy at the Ruhr-University Bochum in Germany. For more than two decades, this international programme has propelled student researchers to define their own academic projects, collect and analyse data, and derive recommendations relevant for people and policy-makers in deprived regions globally. The findings are based on the experiences of students and lecturers from the program including M&E data and reports. This contribution derives take-away messages for postgraduate programmes in the social sciences on how to incorporate research projects and on how to create research outputs relevant to the real world.

Keywords: *Empirical social research; practice-related research; student researcher; research-based learning; field research; AI.*

1. Introduction

By providing new insights and refined up-to-date knowledge, the science system supports society to constantly adapt to upcoming challenges particularly in times of a rapidly changing world. This is particularly relevant in multifaceted contexts of crises, including wars, political unrest, diseases, extreme weather events, and displacement as well as dynamics of increasing inequality. Hence, it is one of the key tasks of academia to incorporate these and create a research landscape that allows for integration of pending global issues (Grabinger et al., 2011). Ideally, it takes over a pioneering role and addresses the most recent developments. In this

context, empirical social research (ESR) can contribute up-to-date, theory-based, evidence-driven, relevant, hands-on, and practice-related insights by collecting and analysing real-world data (Jerabek, 2015). For instance, a simple survey on people's vaccination behaviour may provide insights into reasons for rejection or motivational factors to get vaccinated. Corresponding findings could be essential for improved vaccination campaigns.

Against this background, this paper argues that beyond large-scale and long-term research projects, research of smaller scope, directly linked to problems and realities on the ground becomes increasingly important. Amongst others, empirical research approaches require integration into postgraduate study curricula to allow students to apply their skills and ideally contribute to innovative mostly localised solutions. At the same time, practical application of ESR and the overall ability to design and implement such a project contributes to skills highly relevant in today's job market. Furthermore, in times of increasing usage of generative AI in academia, such projects present academic output truly depending on researchers' own contribution and restrict the misuse of AI.

Based on that, this contribution highlights the relevance and advantages of practice-focused research projects led by students in the first part. We refer to acquired skillsets benefiting students and future employers. In the main part, we present hands-on experience by introducing the case of the Master Programme in Development Management (MADM) offered at the Institute of Development Research and Development Policy (IEE) at the Ruhr-University Bochum in Germany. The MADM program aims to train experienced professionals in the field of development cooperation to deal with practical problems in this field of work and to meet the increasing demand for development experts in international development cooperation (IEE, 2024). In this context, the MADM integrated a complex research training into 18-month of studies equipping students with a solid methods' foundation and the ability to design and conduct highly practice-related empirical research projects. We conclude this paper with a short summary and key take-away messages calling for innovative teaching and research learning.

2. Relevance of Student Research and Practice-Related Empirical Social Research

ESR implies collecting and using data to analyse and describe social phenomena and in this way derive (new) knowledge from actual experience. Therefore, ESR can be considered as evidence-based research (Siebert, 2024). Common data collection tools are inter alia surveys, semi-structured interviews, and observations. Data collection is guided mostly by theory (deductive) and implies interaction with the people on the ground, i.e., the research subjects. This close engagement with lived realities and more broadly the social world is one of the biggest advantages of ESR as research findings ideally allow for practice-relevant insights and recommendations (Clark et al., 2021). Against this backdrop, skills in ESR are becoming more

important in the professional world, which is related to the increasing interest in impact and output measurement, customer-/client orientation, and relevance of monitoring and evaluation.

Hence, courses associated with ESR are included in many study programmes in the social sciences, e.g., statistical methods and data analysis courses. However, based on our experience at RUB as well as exchange with colleagues in this field and with other development-studies postgraduate programmes these offers are often insufficient and rather isolated – comprising only single courses – and students with lacking pre-knowledge rather perform poorly. At the same time, an increasing number of students considers a thesis comprising an empirical part as more interesting and beneficial in terms of career perspectives. Simultaneously, lecturers prefer empirical theses hoping for new perspectives. Some examination regulations even indicate that thesis projects require empirical research. This conflict between partly poor empirical course offers and a high demand in empirical student projects calls for new approaches. One way is to integrate comprehensive and well-guided student research projects based on a solid method training into the study cycle. Before illuminating this approach with our case study, we present five beneficial aspects accentuating the relevance of carefully integrating ESR and practice-related student research into study programmes. These aspects are derived from corresponding discussions in the literature, ongoing vital discussions in the German academic landscape, and from our own experience with the MADM and partner programmes.

2.1. Applying theoretical skills outside the classroom

In accordance with the idea of constructive alignment, the aim is to connect theoretical classroom knowledge with hands-on application of empirical research. A curriculum should be designed in a way that connects the subjects vertically and horizontally to empower the students to actively construct learning while reaching the intended learning outcomes and achieving educational coherence (Angelo, 2012). Hence, teaching activities in the courses build up on one another and are directly linked to students' research projects, which can be understood as one of the desired learning outcomes of postgraduate studies. An example is that students are equipped with theoretical skills of questionnaire construction and then apply these skills to design their own questionnaire for a small survey in practice.

2.2. Designing and facilitating entire research projects

Students need to be familiarised with each step of a research process to conduct ESR independently and in this way benefit from research-based learning. Häder (2022) defines five phases of an empirical research project. Accordingly, ESR reaches from the definition of a research problem, to preparing a survey, collecting and analysing data and finally the documentation of the results (Häder, 2022). Experience shows that guidance throughout each step of the research significantly improves the results of students. Hence, courses focusing on

good scientific practices, research methods, data collection and analysis as well as personal consultation are necessary for successful ESR alongside a master program.

2.3. Opportunity to use findings in the real world

ESR engages with real world problems and thus can provide related recommendations. In line with scientific standards, ESR gives practical insights and provides transferability beyond academia. As a tool to analyse existing problems and evaluate interventions and projects, ESR can be used to develop and refine those (Siebert, 2024). This can be exemplified by the earlier case of a vaccination campaign. Empirical insights on people's motivation to get vaccinated or not, are key to improve the campaign. Such practical relevance motivates students and enriches them with knowledge that they can also apply outside of the academic world.

2.4. Student-led research-based learning

In research-based learning students learn independently through their own research. They are supposed to actively take part in knowledge production instead of just being taught about results. While learning the relevant methods, students plan and carry out research independently and present their findings during their studies (Brew, 2013). To prepare and support students in this research process, it is worthwhile to design a research-based curriculum. Hence, students should be introduced to multiple research activities, have the opportunity to take part in knowledge production, and be encouraged in becoming critical thinkers (Zou et al., 2023). Particularly in times of text generative AI, empirical research projects offer an alternative assessment of students' classroom knowledge and hence helps students to improve these skills.

2.5. Essential career skills

In times of stagnating student numbers and decreasing rates of freshmen at universities in Germany (Statistisches Bundesamt [Destatis], 2021), calls for a stronger connection of study programmes to practice, particularly the real world application of theoretical inputs, are becoming louder. Clearly, study programmes incorporating a strong knowledge base for social empirical research and related application respond to such calls and offer highly hands-on skills required for many jobs. They empower students to conduct research projects independently and provide them with the tools necessary to carry out solid project evaluations, as one example.

3. Application of Practice-Related Empirical Research in case of the MADM

This part of the paper presents the experience of the MADM programme based at the IEE, a central research institute at the Ruhr-University Bochum. The English-language programme is an interdisciplinary course of study designed mainly for students from the global South and those who desire a career in development cooperation. The program is aimed at people, who

already successfully completed a first relevant university degree. Many students also have practical experience in development cooperation. The course teaches theoretical knowledge and empirical methods that prepare students for the demands of the labour market (IEE, 2022). The aim of the program is to enable participants to manage development projects with a sound academic knowledge-base. This comprises skills in ESR to analyse and judge real world problems as well as to report on the outcomes.

3.1. Methodological Approach of the MADM

Against this backdrop, a key element of the MADM is student's own empirical research project, i.e., their master thesis, which is initiated directly after admission to the programme and completed with the submission at the end of programme. Figure 1 provides an overview of the three semesters and related key steps shaping students research project, which are described in more detail in the following.

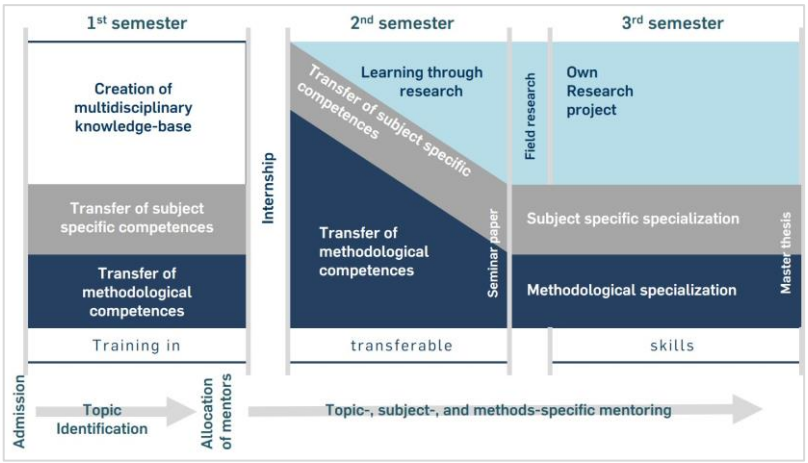

Figure 1. Study sequences, competences, and ESR related steps. Source: IEE (2020).

The first semester equips the students with a broad multidisciplinary knowledge base in the field of development cooperation and international relations; part of that are related dominant development theories and concepts. In addition, sessions on research logic provide students with insights on how to develop practice-related research questions and objectives. In this context, they are put in a position to define a research problem and conduct a literature review. At the same, students are familiarised with skills in statistical methods. While attending coursework, students are encouraged to identify their own research topic for their Master thesis, develop possible research questions and engage with relevant literatures at the very beginning of the MADM. Usually, they opt for a topic, which engages with a development intervention, realities of vulnerable groups, and/or actor constellations in their home country. In these steps of

initiating their own project, the IEE and fellow students provide feedback and students are assigned to a mentor who will supervise their research project throughout the studies.

The second semester builds on this foundation and provides specific skills in quantitative and qualitative research methods as well as a related module called 'How to Conduct a Field Survey'. This two-week block module usually takes place abroad, to allow students to apply their skills in practice. In this semester, students work further on their individual research projects; they particularly design the methodological part of it and prepare their field research abroad. All steps of the research project are to be presented in the seminar paper, an academic paper comprising problem statement, literature review, research questions, and methodology of the project. Students are moreover invited to defend their field research design in class as part of the continued research logic sessions and get feedback from their peers and the institute's researchers. At the end of this semester, student should be in a position to start the data collection in their field research destination. In addition to this semester's methodological training, IEE offers several multidisciplinary courses engaging for instance with financial management, planning, monitoring and evaluation of projects, or further topical developmental themes such as urbanization.

After a three-months period of field research, the last semester offers practice-related course offers and students work intensively with the collected data, e.g., preparing and analysing, and complete their Master thesis. Again, they have the opportunity to present preliminary field research findings to their peers and staff members in research logic sessions. A mentor guides the whole process of the research project including the finalisation. The final Master thesis ideally also comprises practical recommendations, which might be helpful for research participants, the development projects on the ground.

3.2. Case study of an empirical research project

In the following, we provide a brief example of a successful Master thesis project, which certainly benefitted extensively from the outlined concept. One MADM student conducted a quantitative empirical research studying if caregivers' perceptions of the influence of immunization on children's health affect vaccination uptake. The idea for the topic arose from his experiences with childhood diseases in his African home country. Despite existing vaccination options, the spread of childhood diseases could not be prevented. During classwork, the student learned e.g. to conduct a field survey as well as statistical method to analyse quantitative data. Guided by his mentor, he did a literature review to evaluate the status quo of scientific knowledge within the research area and to find a suitable theoretical approach. Using the health belief model, the student structured his analysis and operationalized his variables. The student designed his methodological approach in consultation with his mentor. Based on his own knowledge of the region and published statistics, he found a suitable location for the study and defined a reasonable sampling strategy. The student summarized the research steps

complied before his field research in a seminar paper. Subsequently, the student prepared and conducted his field research in the study location. The student designed a structured interview guide, which he pretested on site before he started the interviews. Over a period of ten weeks, the student conducted over 200 interviews. After his fieldwork, he returned to Bochum to analyse his data and write his thesis. Using factor analysis, the student found out that a lack in knowledge about childhood diseases exists which prevent the widespread vaccination of children. Based on that, he was in the position to derive a number of clear recommendations for local organisations and health agents operating in this field. His successful Master thesis project moreover opened up a unique job position in the field of health management with one Germany's well-established developmental organisations.

4. Concluding remarks

This paper derives four key take-away messages for postgraduate programmes in the social sciences on how to incorporate empirical research projects into study curricula, how to strengthen student-researchers, and how to create research outputs relevant and applicable in the real world:

(1) Applying classroom knowledge gained in postgraduate courses to a practical research project deepens the understanding and increases the motivation of students.
(2) Students require guidance through each step of ESR as part of the course work as well as the supervision.
(3) Small-scale research projects directly address problems and realities on the ground and help to develop practicable solutions for local people and organisations operating in this field.
(4) The integration of ESR in the master program prepares the students for a career inside and outside of academia.

The outlined case of the MADM intends to give an impetus for (re-)structuring postgraduate study programmes in a way that allows for a comprehensive learning experience in ESR. The MADM might function as a so-called prototype for other practice-related study programmes in the social sciences and might inspire lecturers and researchers to (re)consider student led research initiatives. It would be desirable to compare the results with similar programs in order to bring about further improvements and develop clear recommendations for curricula.

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