

Learning by Doing: Transdisciplinary Science and Ex-Durante Evaluation in Public Administration Research

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Abstract: This article examines how transdisciplinarity unfolds between scientists and public servants during ex-durante policy evaluation and how it enables a design-science approach to public administration research. Drawing on a longitudinal diary study conducted over more than one year in two German municipalities, the study analyzes a transdisciplinary collaboration accompanying the implementation of a training program for digitalization change agents. Based on researcher self-reflections and interviews with municipal managers and program participants, the findings show that transdisciplinary engagement enhances policy responsiveness, learning, and legitimacy by enabling real-time feedback and iterative adjustments. At the same time, the collaboration generated role-specific challenges, particularly related to time demands, coordination, and shifting responsibilities. For researchers, embedded collaboration prompted a reflexive shift in understanding scientific practice as relational and co-constructed, requiring methodological adaptability and negotiation of authority. The article concludes that despite its challenges, transdisciplinary, design-oriented evaluation offers significant potential for strengthening evidence-informed policy implementation.

Keywords: Transdisciplinarity; policy evaluation; policy implementation; design science; diary studies

Learning by Doing: Transdisziplinäre Zusammenarbeit und begleitende Evaluation in der Verwaltungswissenschaft

Zusammenfassung: Dieser Beitrag untersucht, wie sich Transdisziplinarität zwischen Wissenschaftler:innen und Verwaltungspraktiker:innen im Rahmen von ex-durante-Politikevaluationen entfaltet und wie sie einen Design-Science-Ansatz in der Verwaltungswissenschaft ermöglicht. Auf Grundlage einer über mehr als ein Jahr angelegten longitudinalen Tagebuchstudie in zwei deutschen Kommunen analysiert der Beitrag eine transdisziplinäre Zusammenarbeit, die die Implementierung eines Trainingsprogramms für Digitallotsen begleitete. Basierend auf Selbstreflexionen der Forschenden sowie Interviews mit kommunalen Führungskräften und Programmteilnehmenden zeigen die Ergebnisse, dass transdisziplinäres Arbeiten die Anpassungsfähigkeit, das Lernen und die Legitimität von Politikmaßnahmen stärkt, indem es Echtzeit-Feedback und iterative Anpassungen ermöglicht. Zugleich brachte die Zusammenarbeit rollenspezifische Herausforderungen mit sich, insbesondere in Bezug auf Zeitaufwand, Koordination und sich verschiebende Verantwortlichkeiten. Für die Forschenden führte die eingebettete Zusammenarbeit zu einer reflexiven Neubewertung wissenschaftlicher Praxis als relational und ko-konstruiert, die methodische Anpassungsfähigkeit und die Aushandlung epistemischer Autorität erfordert. Abschließend wird argumentiert, dass transdisziplinäre, designorientierte Evaluation trotz ihrer Herausforderungen ein erhebliches Potenzial zur Stärkung evidenzbasierter Politikimplementierung bietet.

Schlagwörter: Transdisziplinarität; Policy Evaluation; Policy Implementation; Design Science; Tagebuchstudien

1 Introduction

The origins of public administration as a discipline are deeply rooted in its direct impact on practice, with the collaboration between public administration scholars and practitioners seen to be crucial for effective policymaking (Frederickson, 1980; Waldo, 2017 (1948)). Over time, however, a divide between research and implementation emerged, which Romme and Meijer (2020) describe as the split into validation and design. Recently, discussions on public administration as a design science have resurfaced (Meijer, 2025), emphasizing the need for scholarship that actively contributes to shaping and improving governance, moving from validating to also designing solutions. The design science approach is closely connected to transdisciplinary research, as it involves public administration practitioners as important scientific stakeholders. This article reflects on the potential of transdisciplinarity work in the realm of data collection during policy implementation to enable ex-durante evaluations, which are assessments conducted while policy implementation is still unfolding (Bressers et al., 2013). We argue that such real-time evaluation fosters adaptability, ensuring policies are responsive to emerging challenges.

In the German-speaking context, transdisciplinary research has gained increasing prominence since the early 2000s and is now supported by a growing body of scholarship and dedicated funding programs aimed at strengthening collaboration between science and practice (Michellini et al., 2025; Shennan & Stewart, 2025). Within public administration and related fields, existing research has primarily focused on identifying success factors, evaluating the quality and societal impact of transdisciplinary collaboration, and developing frameworks for knowledge integration and process monitoring (Graf et al., 2023; Meijer & Ettlinger, 2025; van Drooge & Spaapen, 2022). While these contributions provide valuable insights into how transdisciplinary collaboration can be structured and assessed, there is comparatively limited work that examines such collaborations in the context of ex-durante or formative policy evaluation, particularly within municipal administrative settings. Some studies adopt reflexive or project-based approaches to assess transdisciplinary processes ex post (Brink et al., 2018; Hölzle & Krütli, 2025), and recent work has begun to develop frameworks for formative evaluation of transdisciplinary research processes (e.g., Wiefek et al., 2024).

Building on this emerging literature, our research is guided by a central research question: *How does transdisciplinarity unfold between scientists and public servants during ex-durante policy evaluation?* As an illustrative case, we present a diary study methodology (Hyers, 2018; Ohly et al., 2010) applied in two German municipalities during the implementation of a training program for digitalization change agents (Fischer & Breagh, 2025). The longitudinal study over the timespan of over a year relied on heavy engagement between researchers and practitioners. By engaging individuals directly affected by the policy, the diary studies provided rich, time-sensitive insights into its impact, facilitating iterative adjustments to the program. Beyond the empirical reflection, we also assess implications for both scholars and