

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

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Appendix 1A

Interviewleitfaden für Praxispartner (Führungskräfte)	
Frühere Erfahrungen	
Haben Sie vorher schon einmal mit Wissenschaftler:innen zusammengearbeitet oder an einem Forschungsprojekt teilgenommen?	Wenn ja: Wie war das damals?
	Wenn nein: Was haben Sie sich unter einer Zusammenarbeit mit Forschenden vorgestellt?
Erwartungen an die Zusammenarbeit	
Was hätten Sie sich von den Wissenschaftler:innen oder der Forschung im Projekt erwartet?	
Was war Ihnen persönlich wichtig an der Zusammenarbeit?	
Eindrücke vom Forschungsprojekt	
Wie haben Sie das Forschungsprojekt insgesamt erlebt?	
Wie war der Kontakt zu den Forschenden (z. B. Kommunikation, Austausch, Unterstützung)?	
Was ist Ihnen besonders positiv oder negativ aufgefallen?	
Nutzen und positive Erfahrungen	
Was war für Sie persönlich der größte Nutzen oder Gewinn aus der Teilnahme am Projekt?	
Gab es etwas, das Sie motiviert oder inspiriert hat?	
Haben Sie durch die Forschung neue Einsichten oder Perspektiven gewonnen?	
Herausforderungen und Schwierigkeiten	
Gab es Momente, in denen die Zusammenarbeit mit den Forschenden schwierig war?	
Welche Aspekte haben Sie als anstrengend oder weniger hilfreich empfunden?	
Wie hätte man diese Situationen vielleicht verbessern können?	
Lernerfahrungen	
Was haben Sie aus der Zusammenarbeit mit den Wissenschaftler:innen gelernt?	
Hat sich Ihr Blick auf Forschung oder auf wissenschaftliches Arbeiten verändert?	

Verbesserungspotenzial	
Wie könnte die wissenschaftliche Begleitung oder Evaluation Ihrer Meinung nach verbessert werden?	
Was würden Sie sich für zukünftige Forschungsprojekte wünschen, damit sie für Mitarbeitende noch hilfreicher sind?	
Abschluss	
Gibt es noch etwas, das Sie uns mitgeben möchten – etwas, das Ihnen besonders wichtig ist oder das bisher nicht angesprochen wurde?	

Appendix 1B

Reflexionsfragen der Forschenden	
1	Was hat Sie an diesem Fall / dieser Studie besonders interessiert oder angesprochen?
2	Welche Vorteile hatte die Zusammenarbeit aus Ihrer Sicht?
3	Welche Herausforderungen haben Sie in der Zusammenarbeit erlebt?
4	Was war für Sie ein besonderes Highlight der gemeinsamen Zusammenarbeit?
5	Was haben Sie durch die Zusammenarbeit gelernt – sowohl in Bezug auf das Management als auch auf die Change Agents selbst?

Appendix 1C

Auswertung Fragebogen: Change Agents	
1	Was haben Sie sich unter einer Zusammenarbeit mit Forschenden vorgestellt?
2	Was hätten Sie sich von den Wissenschaftler:innen oder der Forschung im Projekt erwartet?
3	Was war Ihnen persönlich wichtig an der Zusammenarbeit?
4	Wie haben Sie das Forschungsprojekt insgesamt erlebt?
5	Wie war der Kontakt zu den Forschenden (z. B. Kommunikation, Austausch, Unterstützung)?
6	Was ist Ihnen besonders positiv oder negativ aufgefallen?
7	Was war für Sie persönlich der größte Nutzen oder Gewinn aus der Teilnahme am Projekt?
8	Gab es etwas, das Sie motiviert oder inspiriert hat?
9	Haben Sie durch die Forschung neue Einsichten oder Perspektiven gewonnen?
	Gab es Momente, in denen die Zusammenarbeit mit den Forschenden schwierig war?
10	Welche Aspekte haben Sie als anstrengend oder weniger hilfreich empfunden?
11	Wie hätte man diese Situationen verbessern können?
12	Was haben Sie aus der Zusammenarbeit mit den Wissenschaftler:innen gelernt?
13	Hat sich Ihr Blick auf Forschung oder wissenschaftliches Arbeiten verändert?
14	Wie könnte die wissenschaftliche Begleitung oder Evaluation verbessert werden?
	Was würden Sie sich für zukünftige Forschungsprojekte wünschen, damit sie für Mitarbeitende noch hilfreicher sind?
15	Gibt es noch etwas, das Sie uns mitgeben möchten – etwas, das Ihnen besonders wichtig ist oder das bisher nicht angesprochen wurde?

Appendix 2A

1st order themes	2nd Order Themes	Illustrative Quote
Positive Effects of Trans-disciplinary Research	Applied Research Design	I find the mix of methods—namely long-term data collection, short-term data collection, regular exchange, and two workshops [useful]. (I-M-2)
	Impact	But that has a completely different level of impact when someone from outside presents the results than when someone from within the organization does so. (I-M-2) In both cases we followed the program implementation, and we were able to give immediate feedback and contribute this way to making it successful – this felt like real world impact in contrast to often very theoretical or abstract work (R2) Finding out that our analysis resulted in the program being granted continuing funds, was a pure highlight. (R3)
	Providing feedback	Getting this overview once again from a scientific perspective, using scientific methods that are objectively neutral, in a positive sense, and not influenced by any political or strategic considerations of the city. (I-M-1)
	Gaining Different Perspectives	As a result, we were able to establish, develop, or rather reinforce additional processes, because your data enabled us to view what we had initiated in this area from an entirely different perspective. (I-M-1) Ultimately, it meant that the concept one had developed in theory and then implemented in practice was presented back to us once again from an external perspective. (I-M-2) There were always two sides to the data: 1) the more theoretical implications of specific relations and influences of variables (e.g. feature preferences of change agents) and 2) the practical implications on how the program is perceived, the effect it has, and employees' general opinions on digitalization and change processes. (R1)
	Breaking down barriers between science and practice	That is why I am fundamentally in favor of combining practice and academic collaboration, because only through both perspectives do I obtain a solid foundation for placing projects that one has devised in this way on a—well, how should I put it—a sound or verifiable basis, while at the same time incorporating lessons learned in a relatively objective manner. (I-M-1) I believe that research and practice need to work together more now than ever before to face today's struggles, create impact, and bring actual improvements to the situations we observe and analyze. (R1) We were also able to interpret the data more accurately because of the direct contact with the cities. (R1)
	Learning	That was not driven by substantive issues, and your data made it possible to incorporate that effectively into the argument and say, 'Look, all the facts that need to be there are there, and you have understood all

		of them. What is happening now is more at the meta-level, and at that point we need to work together to try to change something in terms of the culture within the city. (I M-1)
	Breaking down barriers	Access provided us with [...] the ability to study a case close up [...] which one can't really obtain through interviews and/or buying data panels. (R3) Whether they were reporting success or frustration it put the 'human' back into research. (R3)
	Time Intensive Collaboration	Many questions had to be answered, and doing so required a considerable amount of time. (1-C-2) As we ourselves had both time and financial constraints it meant that we were constantly struggling to ensure that we provide these links, and the types of questions we wanted to ask. (R3) [Our data collection] can be at odds with practitioners, who have been asked to participate in with as an add on to their daily work. (R3)
Critical Aspects of Transdisciplinary Research	Disconnect between action and purpose	I did not see the purpose or the advantage. (I-C-5) The questions to be answered were so far removed from the practice at the time that they were, in essence, usually not really answerable in a usable way. (I-C- 2) Although the program managers saw us as collaborators and a help in developing the program, the Digitallotsen themselves were also skeptical about our research (R2)
	Maintaining relationships	One of the lessons is that the relationship with the key contact person is quite important, which also means you rely on their engagement in some way. (R1) Understanding each other, talking the same language – especially related to research methods but also detailed knowledge about digitalization instruments or regulation they were busy with (R2)
	Data driven independent insights	The main reason was precisely to gain that overarching perspective once again through a scientific lens, using scientific methods—an objective, sober perspective in the positive sense, one not shaped by any political or strategic considerations on the part of the city. (I-M-1) So, essentially, to look at it again from a scientifically grounded perspective, to provide neutral feedback, and perhaps also to offer some new impulses. I would do it again every time. (I-M-2).
Impact on Administrative Practice	Credibility	Yes, well, as I said, especially that issue with the roles [that you communicated to us]. That stuck with us because at one point we had to bring it up again—and we not only had to bring it up again, but we had to do so right in the middle of things. Interestingly, after that, the feedback in the questionnaires was no longer along the lines of, 'I still don't understand my role.'(I-M-1)

	Communicating Scientific communication	Presenting our results to the digitalization board of the local government and with this helping the department to get more resources for the program (real world impact). This was a big compliment; they trusted us so much that they wanted to use us for external legitimacy. (R2) So a challenge for us was to communicate and maintain the relevance of our research to our participants – so they would continue to participate by taking the time to complete our surveys, diary studies and interviews. (R3)
Impact on Research	Vulnerability	So when they were slow or delayed in giving us information, or in some logistical cases, we were left trying to decide how best to proceed. (R3) The management really dictated our access to participants, but also likely their probability of actually participating in the study. We needed them. (R3)
	Insights	In both cases we followed the program implementation, and we were able to give immediate feedback and contribute this way to making it successful – this felt like real world impact in contrast to often very theoretical or abstract work. (R2)
	True reflection on impact	For me, this project brought up the question of how to approach this again. When you work on practitioner reports, you often wonder how much the data you provide is actually used by or helpful for the practitioners. (R1) In both cases we followed the program implementation, and we were able to give immediate feedback and contribute this way to making it successful – this felt like real world impact in contrast to often very theoretical or abstract work. (R2)
	Balance between science and practice	This meant that there were always two sides to the data: 1) the more theoretical implications of specific relations and influences of variables (e.g. feature preferences of change agents) and 2) the practical implications on how the program is perceived, the effect it has, and employees' general opinions on digitalization and change processes. (R1)