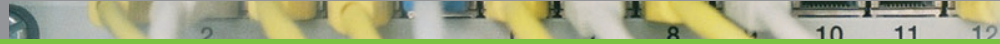


Quality Criteria for Transdisciplinary Research

A Guide for the Formative Evaluation of Research Projects



Foreword by Thomas Jahn

It is a familiar situation. In the middle of a high-level transdisciplinary research project, panic sets in – especially in the responsible project management. How can the various strands of research be brought together? How can the members of the heterogeneously composed team, who come from differing scientific and scholarly disciplines and from the realm of practice, be enabled to understand each other? How can the exchange of progress and results be organized so that necessary processes of finding agreement contribute to a good overall result? How are the results evaluated by the project's participants and from outside? And how can these results *endure* in science and at the same time be taken up in the context of practice, since they go against the grain of disciplinary criteria of quality? These and many other questions are typical of complex, transdisciplinary, and practice-related research situations.

Even today, research is carried out primarily within disciplinary boundaries. Problems are characterized by disciplinary interests; processes of solving societal problems with a problem core in practical or everyday life are not the primary goal. It is true that researchers increasingly act on terrain whose content is new, but the processes of scientific problem solving are still structured in accordance with patterns of disciplinary order, and the criteria of quality in research work are still discipline-related.

Concrete societal problems demand solution-finding processes (and solutions) that transcend the order of the disciplines and go beyond purely disciplinary research processes and approaches. The newer the practical problem that needs to be solved, the more important these boundary crossings become. The core of transdisciplinary research lies in these boundary crossings and in their methods. At the same time, this raises the question of standards of quality and of the practice of evaluating such research. Transdisciplinary research cannot yet claim a recognized canon for this, especially because of its youth; at best, the first beginnings in this direction can be observed. The project *Evalunet* marks a milestone on this path.

Transdisciplinary social-ecological research had to respond to this challenge early. Due to the uncertainty factors described above, it was confronted with several interrelated problems from the beginning. Thus, on the one hand, it had (and has) to deal with an accentuated problem of perception: The disciplinary patterns of perception cannot be applied to it, and this can lead to its devaluation or the devaluation of its results as science. Closely tied to this, on the other hand, is the problem of evaluation: Transdisciplinary research proposals and research results are generally subject to a multiple appraisal, compete with the criterion of top disciplinary achievement, and remain unevaluated in terms of the achievement of transdisciplinary integration – which means it is undervalued as a whole. There is no general, scientifically recognized “set” of criteria for good transdisciplinary research, no shared and recognized understanding of transdisciplinarity that corresponds to the understanding of disciplines. Beyond that, transdisciplinary social-ecological research has a specific problem in collaboration, since there is still a lack of practical routines of research and science for transdisciplinary integration processes on all levels of a research process, though this is precisely where the fate of concrete research projects is decided.

In recent years, these problems have been dealt with either in discourses shaped by academic science studies or in concrete research practice, especially in research conducted outside the university. A gap has systematically opened up between them. Closing this gap is the overarching goal of *Evalunet*. Necessary to this end was, first, that several institutions affected by these problems come together – a single institution alone could not have completed this task. And it also required its own – transdisciplinary – research concept with a tested relationship to practice, its own development of methods, and a transdisciplinary team.

But it was not until the Federal Ministry of Research set up the research funding program “Social-Ecological Research” in 2000 that the essential institutional and financial prerequisites were created to actually carry out the project and to expand the basic idea into a robust concept. This concept formed the framework for the research project “Evaluation Network of Transdisciplinary Research”, whose work method, structure, and questions remain unique. In several years of work with the participation of numerous experts from a variety of scientific fields and institutional contexts, a wide range of transdisciplinary research experience was evaluated and processed into criteria and procedures for evaluation. Here, the broad spectrum of research content and research settings of the transdisciplinary research projects evaluated within the project was a central prerequisite for working out a guide suitable in practice for transdisciplinary research, as is presented with this criteria catalog. On the one hand, it is the conclusion of this process of several years of work and research; but we hope it is also the beginning of the next phase of a practice-reflecting way of dealing with the understanding of transdisciplinary research and thus of a next phase in the strengthening of transdisciplinary research practice as a whole.

Recognition that research and science are not independent of the participating persons was a decisive factor in the work in the project *Evalunet*, but it can also be applied to transdisciplinary research in general. Those active in transdisciplinary research have to bring with them the ability to deal with quite various forms of knowledge and work. They have to recognize their own – disciplinary – limits and muster the willingness and interest to tread new conceptual and methodological ground.

With their openness and willingness to cooperate and discuss, the members of the *Evalunet* project group and the colleagues supporting them from a wide variety of research contexts have decisively contributed to making it possible for the ambitious task of *Evalunet* to achieve the result presented here. Special thanks are due to Matthias Bergmann, who successfully led the work of the project group and who had an essential part in the production of this criteria catalog in its present form. Without him and his ability to hold differences and different things in a productive balance, this project would not have been possible.

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