

29 publications referring to the evaluation of criteria and indicators, measuring co-creation processes

As a first step an overview on the state-of-the-art discussion was needed. Thus a literature collection was started in 2015, covering the past decade (**2005 - 2015**). The search was done without any restrictions in thematic fields. Two key items ("evaluation" and "transdisciplinary research") were decided on, both in English and German, and the search was reduced on the combination thereof. Titles, headlines and full text of the publications were covered.

Scanning the resulting 49 articles in terms of concrete assessment aspects, quite an amount of the publications was sorted out. Instead, the pool was complemented by publications that were already known or that showed up during work (snowball sampling). The compilation ended up with 29 articles that propose concrete assessment aspects on the levels of "criteria" and "indicators".

For methodological and technical reasons this literature overview cannot be looked upon as complete. It only served as a first step when approaching the issue of evaluating the transdisciplinary research mode and its products.

For more information and further results:

Schuck-Zöller, S., Cortekar J., Jacob, D: Evaluating co-creation of knowledge: from quality criteria and indicators to methods. Adv.Sci.Res., 1, 1-8, 2017 (upcoming)

List of 29 publications

Bergmann, M., Jahn, T., Knobloch, T., Krohn, W., Pohl, C., Brohmann, B., Hoffmann, E., Loibl, M. C., Rehaag, R., Schramm, E., and Voß, J. P.: Quality criteria of transdisciplinary research: a guide for the formative evaluation of research projects, ISOE-Studientexte, 13, Institute for Social-Ecological Research (ISOE), Frankfurt/M., Germany, 78 pp., 2005.*

Bergmann, M., and Jahn, T.: Intendierte Lerneffekte: Formative Evaluation inter- und transdisziplinärer Forschung. Matthies H., and Simon, D.: Wissenschaft unter Beobachtung, VS Verlag für Sozialwissenschaften, Wiesbaden, Germany, 222-247, 2008.

Bergmann, M., Jahn, T., Knobloch, T., Krohn, W., Pohl, C., and Schramm, E.: Methods for Transdisciplinary Research, Campus, Frankfurt/M., Germany, 2012.*

Carew, A.L., and Wickson, F.: The TD Wheel. Futures 42, 1146-1155, 2010.

Daschkeit, A., and Loibl, M. C.: Projektspezifische Evaluation human-ökologischer Nachhaltigkeitsforschung. Stoll-Kleemann, S., and Pohl C.: Evaluation inter- und transdisziplinärer Forschung. Humanökologie und Nachhaltigkeitsforschung auf dem Prüfstand. Edition Humanökologie , 5, Oekom, München, Germany, 157-173, 2007.

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Hall, K. L., Stokols D., Brooke, Stipelman, B .A., Vogel, A. L., Feng, A., Masimore, B., Morgan, G., Moser, R. P., Marcus, S. E., and Berrigan, D.: Assessing the value of team science. *Am J Prev Med* 42, 157-163, 2012.

Hassenforder, E., Smajgl, A., and Ward, J.: Towards understanding participatory processes: framework, application and results, *Journal of Environmental Management* 157, 84-95, 2015.

Helgenberger, S.: Evaluation der gesellschaftlichen Auswirkungen von transdisziplinären Forschungskooperationen. Diplomarbeit. 32 p.

http://www.partizipation.at/fileadmin/media_data/Downloads/Forschungsplattform/Helgenberger_Diplomarbeit.pdf, last access 22 Aug 2017, 2006.

Jahn, T., and Keil, F.: An actor-specific guideline for quality assurance in transdisciplinary research, *Futures*, 65, 195-208, 2015.

Klein, J. T.: Evaluation of interdisciplinary and transdisciplinary research, *Am. J. Prev. Med.*, 35, S116-123, 2008.

Lang, D. J., Wiek, A., Bergmann, M., Stauffacher, M., Martens, P., Moll, P., Swilling, M., and Thomas C. J.: Transdisciplinary research in sustainability science: practice, principles, and challenges. *Sustain Sci*, 7/1, 25-43, 2012.

Masse, L. C., Moser, R. P., Stokols, D., Taylor, B.K., Marcus, S. E., Morgan, G. D., Hall, K., L., Croyle, R., T., and Trochim, W. M.: Measuring collaboration and transdisciplinary integration in team science, *Am. J. Prev. Med.*, 35(2S), 2008.

Pohl, C., and Hirsch Hadorn, G.: Principles for designing transdisciplinary research. A proposition by the Swiss Academies of Arts and Sciences. Oekom, München, Germany, 120 pp., 2007.*

Pohl, C., Perrig-Chiello P., Butz, B., Hirsch Hadorn, G., Joye, D., Lawrence R., Nentwich, M., Paulsen, T., Rossini, M., Truffer, B., Wastl-Walter, D., Wiesmann, U., and Zinsstag J.: Questions to evaluate inter- und transdisciplinary research proposals. Working paper. td-net, Bern, Switzerland, 23 p., 2010.

Polk, M.: Transdisciplinary co-production: Designing and testing a transdisciplinary research framework for social problem solving. *Futures* 65, 110-122, 2015.

Renner, R., Schneider, F., Hohenwallner, D., Kopeinig, C., Kruse, S., Lienert, J., Link, S., and Muhar, S.: Meeting the Challenges of transdisciplinary knowledge production for sustainable water governance. *MRD*, 33,3, 234-247, 2013.

Roux, D. J., Stirzaker, R. J., Breen, C. H., Lefroy, E. C., and Cresswell, H. P.: Framework for participative reflection on the accomplishment of transdisciplinary research programs. *Environmental Science & Policy*, 13, 733-741, 2010.

Schübel, H.R.: Interdisziplinäre Kooperation in transdisziplinärer Forschung besser machen? Prozessbegleitung als formative Evaluation. Stoll-Kleemann, S., and Pohl C.: Evaluation inter- und transdisziplinärer Forschung. Edition Humanökologie , 5, Oekom, München, Germany, 195-210, 2007.

Selbmann, K., Mohr, K., Klinnert, A., and Litz, P.: Inter- und transdisziplinäre Kooperation im Projekt. Project report, 19 p., http://www.avbstiftung.de/fileadmin/projekte/LP_AvB_Selbmann.pdf, last access 22 Aug 2017.

Smoliner, C.: Evaluation in der Programmforschung oder doch lieber würfeln? Stoll-Kleemann, S., and Pohl C.: Evaluation inter- und transdisziplinärer Forschung. Edition Humanökologie , 5, Oekom, München, Germany, 95-108, 2007.

Stokols, D., Harvey, R., Gress, J., Fuqua, J., and Phillips, K.: In vivo studies of transdisciplinary scientific collaboration. *Am J Prev Med*, 28 (2S2), 202-213, 2005.

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Stokols, D., Misra, S., Moser, R. P., Hall, K. L., and Taylor, B. K.: The ecology of team science. *Am J Prev Med* 35 (2s), S96-S115, 2008.

Stokols, D., Hall, K.L., Moser, R.P., Feng, A., Misra, A., Taylor, B.K.: Cross-disciplinary team science initiatives: research, training, and translation. Frodeman R., Klein J. T., and Mitcham C.: *The Oxford Handbook of Interdisciplinarity*, 471-493, 2010.

Vaughan, C., and Dessai, S.: Climate services for society: origins, institutional arrangements, and design elements for an evaluation framework, *WIREs Clim Change*, 5, 587-603, 2014.

Walter, A., Helgenberger, S., Wiek, A., and Scholz, R.: Measuring societal effects of transdisciplinary research projects: design and application of an evaluation method, *Evaluation and Program Planning*, 30, 325-338, 2007.

Wickson, F., Carew, A. L., and Russell, A. W.: Transdisciplinary research: characteristics, quandaries and quality, *Futures* 38, 1046-1059, 2006.

Wiek, A.: Challenges of transdisciplinary research as interactive knowledge generation. *Gaia* 16/1, 52-57, 2007.

Wooten, K. C., Rose, R. M., Ostir, G. V., Calhoun W. J., Ameredes B. T., and Brasier, A. R.: Assessing and evaluating multidisciplinary translational teams: a mixed methods approach. *Evaluation & the Health Professions*, 37/1, 33-49, 2014.

Wolf, B., Lindenthal T., Szerencsits, M., Holbrook, J. B., and Heß, J.: Evaluating Research beyond Scientific Impact, *GAIA*, 22/2, 104-114, 2013.

*) Available in German, too.