

Dialogue Session “Conceptualizing and measuring social learning: challenges and ways forward” at the International Sustainability Transitions Conference 2016

Time slot: 7th of September 2016, **9:00h-10:30h**
Location: University of Wuppertal, Campus Griffenberg, Hörsaalzentrum, Building K, **Room K4**
Chairs: Dr. Joanne Vinke-de Kruijf, Dr. Geeske Scholz and Prof. Claudia Pahl-Wostl, Institute of Environmental Systems Research, University of Osnabrück, Germany

Scope and issues to be covered

Transitions towards a more sustainable society involve dealing with complex or ‘wicked’ problems. In such transitions, theories of change that focus on learning play an important role. Especially the concept of ‘social learning’ has been widely applied and yet continues to incorporate a great diversity of meanings. In this session, we will identify and discuss the key theoretical and methodological challenges that are associated with conceptualizing and measuring social learning as well as ways forward. Also, we will reflect upon social learning research as transformative science and explore how it can support moving towards a more sustainable society.

Starting-points of this session are recent debates and advancements regarding the conceptualization and measurement of social learning. Recent reviews of the literature on social learning provided valuable insights into how the concept is used in different communities. Also, attempts were made to harmonize conceptualizations of social learning. Whether such attempts are worthwhile is questioned by others who see an open use of the concept as a major advantage. As diverse definitions and conceptualizations of social learning continue to exist, the difficulty of comparing research on social learning remains, limiting the development of more general knowledge. At the same time, we observe that scholars started to apply new methods of measuring social learning. In this session we invite scholars to present their (ongoing) empirical and theoretical work and thoughts on social learning conceptualizations and measurement. We look at both challenges and ways forward, hoping to develop the learning capacity of the community to apply and evaluate (the) social learning concept(s) in efforts of transitioning towards a more sustainable society.

Programme

In this interactive session, presenters are asked to reflect upon some of the conceptual and methodological challenges they experienced when examining social learning. After a brief welcome and introduction, we have four regular presentations (8 minutes each, 2 minutes for questions). These presentations are followed by an open discussion during which the presenters will form a panel and interact with the audience. We then have two speed talks (4 minutes each, 1 minute for questions). The session is closed with a discussion on the measurement of social learning and social learning as transformative science.

- 9:00 **Welcome and introduction**
Joanne Vinke-de Kruijf
- 9:05 **Presentation “Where do we stand? Progress made and a way forward for conceptualizing and reporting on social learning”**
Geeske Scholz
- 9:15 **Presentation “Beyond the comfort zone: making social learning work”**
Merel van der Wal.
- 9:25 **Presentation “Dynamic Transformation of Tidal River Management: Learning from the Water Management Practices in Bangladesh Delta”**
Mahmuda Mutahara
- 9:35 **Presentation “Learning in support of social-ecological change: A review of 52 case studies in natural resources management”**
Monika Suškevičs

- 9:45 **Open discussion “Conceptualizing social learning”**
- Is there a need for harmonizing conceptualizations and definitions of social learning?
 - If you are in favour of a single definition of social learning: Which aspects should be included or addressed?
 - What can we learn from other theories of change?
- 10:05 **Speed talk “A question of method: tools for data collection and analysis across social learning scholarship”**
Romina Rodela
- 10:10 **Speed talk “On the conceptualization and assessment of social learning and its wider impacts”**
Joanne Vinke-de Kruijf
- 10:15 **Open discussion “Measuring social learning and social learning as transformative science”**
- What are key challenges when measuring and assessing social learning?
 - What (new) qualitative and quantitative methods are particularly helpful or promising?
 - Considering the need for transformative science, how can or should social learning research support moving towards a more sustainable society?
 - What innovative approaches are particularly promising? What are key future research themes?
- 10:30 **Close of session**
Joanne Vinke-de Kruijf

Biographies of organizers and presenters

Joanne Vinke-de Kruijf (leading chair and presenter) is postdoc researcher at the Institute of Environmental Systems Research, University of Osnabrück. Additionally, she is the honorary secretary of The Integrated Assessment Society. Her research focuses on international cooperation, (social) learning, policy transfer and governance in the domains of water management and climate change adaptation. In her current research, she examines learning about climate change adaptation through European cooperation projects. Before joining the University of Osnabrück, Joanne worked for one year as international project manager at a Dutch regional water authority. She obtained her PhD degree from the University of Twente, the Netherlands in 2013.

Geeske Scholz (co-chair and presenter) is lecturer at the Institute of Environmental Systems Research at Osnabrück University, Germany. She holds a PhD in Applied Systems Science. Geeske published on social learning, the evaluation of participatory methods, and agent-based modeling. Her research interests are social learning and social change, and how modeling, specifically computer simulations, can help us to understand and facilitate these phenomena.

Claudia Pahl-Wostl (co-chair and co-author) is professor for resources management at Osnabrück University and an international expert on governance and adaptive and integrated management of water resources and the role of social and societal learning. Her major research interests are adaptive, multi-level governance and management of water resources, social and societal learning and their role in sustainability transformations, and conceptual and methodological frameworks to analyze social-ecological systems.

Blane Harvey (cancelled) is a Research Associate with the UK's Overseas Development Institute (ODI) and an Adjunct Research Professor at Carleton University's (Canada) Department of Geography and Environmental Studies. He previously led work on program-based learning, strategic outreach and engagement with the IDRC's Collaborative Adaptation Research in Africa and Asia (CARIAA) programme. Blane research studies how climate change knowledge is produced, validated and communicated, and how social learning and knowledge sharing can support action on climate change in the global South. He is also interested in how community-based media can use action research to influence policy and affect social change. Blane has been an active contributor to the UN climate change negotiations process since 2003 with a focus on strengthening action to support adaptation in developing countries and is a contributing author on indigenous knowledge and climate change in Africa for the Intergovernmental Panel on Climate Change's 5th Assessment Report (WG II). He holds a PhD in education and international development from McGill University, Canada.

Merel van der Wal (presenter) has a PhD degree in computer model use in social learning for participatory natural resource management. She has published on social learning, climate adaptation and ecosystem services. She is interested in professional, informal learning in general, and focused on the setting of climate adaptation in rural areas. Currently employed at the Radboud Graduate School of Education, she is working on a theoretical framework for professional development using the concept of boundary crossing to understand (social) learning processes in teachers' professional development. At the same time she continues to write about learning for participatory natural resource management.

Monika Suškevičs (presenter) is a post-doctoral researcher at Stockholm Resilience Centre, Sweden. Her research interests include participatory decision-making and governance in the natural resources management (NRM) domain, especially in Central and Eastern European countries' (CEE) contexts, and qualitative research methods. She obtained her PhD in Environmental Conservation in 2014 at the Estonian University of Life Sciences. In her PhD she compared multiple case studies on participatory multi-level ecological network governance in selected countries across EU. Her post-doctoral research focuses on learning-based approaches in NRM, and their outcomes as well as wider impacts.

Mahmuda Mutahara (presenter) is a PhD candidate with the Education and Competency Studies (ECS) group in Wageningen University, Netherlands. She completed her Master under Institute of Water and Flood Management in Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh and Bachelor in Environmental Science from Khulna University, Bangladesh. She conducted research for her Master's thesis on socio-economic system in one of the most climate change-vulnerable rural coastal areas in Bangladesh. She was involved in several environmental and social studies under Ministry of Water Resources in Bangladesh. She has teaching experience in Environmental Science at Khulna University for one year. Since the last four years, she has been working on flooding, delta water resources management and adaptation in Bangladesh and Dutch delta. She tries to explore the space for social learning with water management practices in a disaster prone rural coastal area.

Romina Rodela (presenter and co-author) is a researcher working in the interdisciplinary research field of environmental governance with an interest for participatory processes, learning-based natural resource management and the changing of role of science in society. She was a Marie Curie (IEF) awardee at the UNESCO Chair for Social learning held by Prof. Arjen Wals at Wageningen University and later an NWO Fellow at the Laboratory of Geo-Information Science and Remote Sensing at Wageningen University. In 2012 she was awarded a "*Grant for sustainable development research in the social sciences and humanities areas*" by FORMAS, which she is currently undertaking at the School of Natural Sciences, Technology and Environmental Studies of Södertörn University. Romina is cooperating with civil society actors in Italy and Slovenia on learning-based local initiatives.

Johannes Halbe (co-author) is a Ph.D. student at the Institute of Environmental Systems Research, University of Osnabrueck, Germany. He has an interdisciplinary educational background with a Diploma degree in Civil Engineering (Dipl.-Ing.) and a B.A. in Economics. In his research, Johannes analyses the applicability of participatory modelling methods to stimulate learning and actively govern transition processes towards sustainable development.

Hannes Thomsen (co-author) is a PhD candidate at the Institute of Environmental Systems Research, Osnabrück University. His research interests are the dynamics of social- ecological systems and conditions that trigger sustainable resource management. He uses computer simulations to better understand coupled social- ecological systems.

Thomas Hahn (co-author) is assistant professor in agricultural and ecological economics focusing on ecosystem services, commodification and financialisation of nature, innovative financial mechanisms for biodiversity conservation and adaptive governance in relation to ecosystem stewardship. He publishes in journals such as PNAS, Human Ecology, Ambio, Annual Review of Environment and Resources, Global Env Change, and Ecology & Society. He assists the Convention on Biological Diversity on Scaling-up biodiversity finance and serves as board member of the Swedish Nuclear Waste Fund as well as of Sveaskog, one of the largest forest owners in Europe. He has also co-authored a public report on the value of ecosystem services commissioned by the Swedish government.

Biljana Macura (co-author) is a Research Fellow in Stockholm Environment Institute, Stockholm, Sweden. In this position, she is working with the MISTRA-EviEM project on evidence syntheses in the field of environmental management. Biljana is an environmental social scientist with research interests in qualitative and quantitative evidence synthesis, forest governance and conservation policy. Biljana holds a PhD in forest policy from University of Padova, Italy and Bangor University, United Kingdom. She received a MSc (2010) in Environmental Studies from ICTA, Autonomous University of Barcelona, Spain and Hamburg University of Technology, Germany.

Jeroen Warner (co-author), Associate Professor in Disaster Studies, Sociology of Development and Change, Social Sciences Group, Wageningen University, Netherlands teaches, trains and publishes on domestic and trans-boundary water issues, multi-stakeholder platform and participatory resource management, and water governance. His main research interests in the disaster studies domain are social resilience. He supervises several Master and PhD students in different parts of the world. He is involved in several research projects in different countries including the Netherlands, Brazil, Palestine, Turkey and Bangladesh.

Arjen Wals (co-author) is a Professor of Transformative Learning for Socio-Ecological Sustainability at the Education and Competence Studies Group of Wageningen University. He also holds a position as UNESCO Chair of Social Learning and Sustainable Development. In addition, he gives lectures at Gothenburg University in Sweden as a part-time Professor in Education and Learning for Sustainability. He focuses his research on designing learning processes and learning spaces that enable people to contribute meaningfully to sustainability. He is interested in community-engaged research globally. He is also involved in developing the idea of creating sustainability-oriented hybrid learning configurations: vibrant coalitions of (un)likely stakeholders using multiple forms of learning to jointly imagine, design and implement solutions to the key challenges.

M. Shah Alam Khan (co-author) is a Professor at the Institute of Water and Flood Management (IWFM), Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh. Dr. Khan is involved in scientific research on coastal engineering, coastal zone management, and urban water systems, with special attention to coastal vulnerability and disaster risk reduction, storm surge and tsunami hazard assessment and urban/peri-urban water systems dynamics. In his academic career, Dr. Khan also explored the interdisciplinary areas of water security, hydro-climatic vulnerability and adaptation, ecosystem services and community resilience, and built a long-standing collaboration with national and international multidisciplinary partners. He teaches postgraduate courses in Coastal Zone Management, Urban Water Management, Water Resource Systems Analysis, and Interdisciplinary Field Research Methodology, and links his research experience to academic teaching and advising.

Philippus Wester (co-author) is Chief Scientist in Water Resources Management at the International Centre for Integrated Mountain Development, Kathmandu, Nepal. From 2001 until 2013, he was employed at Wageningen University where he continues to be engaged in several research projects. In the past 20 years, he has worked on developing, managing and implementing research, capacity building and education programmes in water resources management and governance. In his research and capacity building, he focuses on land and water resources management from an integrated and transdisciplinary perspective, with attention to the politics and governance of water resources, river basin management, water reform and allocation processes, floods and water governance in mountains and deltas, participatory groundwater management, and irrigation water management.

Abstracts of regular presentations

Where do we stand? Progress made and a way forward for conceptualizing and reporting on social learning

Geeske Scholz, Joanne Vinke-de Kruijf, Hannes Thomsen, Johannes Halbe, Claudia Pahl-Wostl, Institute of Environmental Systems Research, University of Osnabrück, Germany

In this introductory talk, we provide an overview of ongoing discussions and progress that has been made in conceptualizing social learning since the definition of social learning proposed by Reed et al (2010). While some scholars took their definition up and sometimes extended it for research, others have chosen to adopt another definition or to adopt multiple rather than one definition or perspective. One of the main critiques on the article and definition of Reed et al. (2010) is that they fail to acknowledge the relevance and need of diverse perspectives on social learning (Rodela, 2011; Ison et al, 2013). As social learning is applied in diverse research fields this may naturally lead towards diversity in the concept (Rodela, 2011). At the same time, others have noted that the diversity of conceptualizations of social learning has hindered the development of systemic metrics of learning as well as an improved understanding of the conditions influencing learning (Crona and Parker 2012). There is still little consensus on what criteria need to be fulfilled for a process to be called social learning (Johannesson and Hahn 2013), pointing to a need to further operationalize the given definition to actually measure social learning. Moreover, to systemically review social learning publications continues to be problematic as researchers sometimes provide only loose definitions of social learning and fail to report on the selection of assessment criteria (Rodela, 2011). In summary, the diversity of definitions and conceptualizations hampers the development of more generalizable insights regarding the factors or conditions influencing social learning.

Our position is that while we acknowledge and agree that social learning cannot be defined in exactly the same way by researchers who apply the concept in diverse contexts and research fields, we consider the development of a common framework as a critical endeavour so that knowledge can cumulate. It is important to be clear about what is being meant when talking about social learning, and about who learns how, what, and with what outcome. To compare research on social learning, a common ground is needed. While we consider the definition proposed by Reed et al (2010) a good basis, we show that there is a need to further specify and operationalize the concept. To be able to present an overview of recent developments we conducted a systematic review of all papers citing Reed et al. (2010) with a focus on the conceptualization of social learning and the use of the Reed et al definition. As Reed et al. provided a comprehensive definition of social learning, we use the literature citing them to find out if: i) their definition was taken up and used in the community; ii) criticism arose; and iii) amendments to their definition have been proposed. To provide researchers with a guideline which aspects to define and consider, we develop a protocol for reporting on social learning, which directly stems from the review results of common practice in the field. In our protocol, we diverge from the definition proposed by Reed et al. (2010) and call upon researchers to be explicit about who learns (including changes at the collective level), what has been learned (comprising relational aspects and the development of a shared understanding), the context in which the learning happens (the type of the process, actor constellations, cultural context and time frame), and to use a joint language to clearly describe outcomes (such as the direction of learning, increased capacity to deal with problems, and different levels of learning).

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Social Learning in R4D institutions and partnerships: Learning from the ground up

Blane Harvey, Overseas Development Institute, United Kingdom and Carleton University, Canada

Climate change adds considerable uncertainties and complexities to what are already multidimensional sustainable development challenges. It is increasingly likely that we are already locked into a two-degree temperature rise, whatever happens to global greenhouse gas emissions. There is ample evidence that the resources needed to deal with the adaptation challenges that this presents exceed the resources currently mobilized for it. However, effective responses are not just a question of resources: the approaches that many of our institutions are taking are failing to address the level of complexity and the cross-scalar nature of the challenges that are triggered by climate change in the context of development.

In response, a lot of valuable practical and theoretical work is being undertaken on the potential contributions of learning and reflective practice as a way to bring together different knowledges and to address the multiple dimensions of complex problems, and to take learning beyond the local or individual into much wider networks of practice. Social learning and similar learning-based approaches are building a compelling body of evidence on their potential at more localised scales, but we know that the scale of the climate change challenge demands more than isolated community scale actions.

Supported by recent scholarship in this area, this presentation will argue that the principles emerging from these local-level learning approaches are equally applicable at higher scales, and have the potential to achieve an important shift in thinking across levels. Such work is providing increasing clarity as to what kinds of research, collaboration, and disposition to problem solving are needed to address the levels of complexity and uncertainty we are facing under climate change in a development context (Ensor & Harvey 2015).

Drawing on evidence from three ongoing initiatives that are working to introduce social learning processes and principles into large research-for-development programmes, this presentation will share emerging lessons on the conditions necessary for social learning to be embedded at these scales, the means by which its contributions can be monitored and assessed, and the extent to which it might contribute to transformative impacts on partnerships and practice (Kristjanson et al 2014; Van Epp & Garside 2014; Harvey et al 2012; Pasanen, Harvey & Buffardi forthcoming). It will conclude by proposing a set of critical elements in a “pathway to institutional transformation” whereby social learning approaches can play a more central role in research for sustainable development. In keeping with the session’s theme, particular attention will be paid to the role and influence of monitoring and evaluation frameworks in either promoting or undermining social learning processes.

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Beyond the comfort zone: making social learning work

Merel van der Wal, Radboud University, the Netherlands

In participatory integrated assessments (PIAs), social learning can be supported by computer models to explore future developments of socio-economic and biophysical changes (Hisschemoller, Tol, & Vellinga, 2001). Stakeholders can go through the experiential learning cycle by continuously ‘experiencing, reflecting, conceptualizing, and taking action’ together. This cycle can result in a transformed and shared perspective on the problem and solution, benefiting jointly supported policy decisions (Jiggins, Röling, & Van Slobbe, 2007). Research based on post-facto analysis has led to the understanding that computer models play two roles in this cycle, leading to social learning (De Kraker, Kroeze, & Kirschner, 2011; De Kraker & Van der Wal, 2012): Models can function as a communication platform and as an exploration platform. Taking place within a PIA, these roles are affected by enabling and restraining factors such as model characteristics, facilitation, participation, and stakeholder selection. An empirical study on the role of computer models in PIA will provide insight in using computer models for social learning, addressing the question: What is the role of computer models in social learning for participatory natural resource management, and how can we improve the role of computer models?

A method to assess social learning was developed based on the definition of social learning in terms of convergent perspectives (Van der Wal et al., 2014). The method is based on cultural theory and consists of three steps: *operationalization* of perspectives for a specific situational context in a ‘perspective scoring table’ (PST), *applying* the scoring table as a tool for repeated measurement of the perspectives of participants, and *analysis of changes* in perspectives.

This assessment of social learning was applied in two case studies (a simulation game and an authentic PIA in order to obtain a consistent way of assessing social learning of stakeholders and capture changes over time. Qualitative analysis of discussions and interviews helped to understand any changes in perspective. Consequently, a side-by-side comparison between the two case studies provided insight in the role of computer models in social learning.

The results from the comparative analysis provided deeper understanding of the role of models in social learning dynamics. The comparison of a simulation game and an authentic PIA, both based on computer model simulations, showed that a game setting facilitated reflection and evaluation of model output, whereas an authentic PIA demonstrated various social learning challenges.

Overall, we found that computer models can function as social learning tools, however the comparative case-studies showed certain conditions important to reaching social learning. Model-supported social learning can be improved by understanding the role of computer models from the concept of boundary crossing. Various types of boundary crossing can facilitate social learning in groups of stakeholders regarding natural resource management. Additionally, we found that using our research methodology can also add to the social learning process.

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Dynamic Transformation of Tidal River Management: Learning from the Water Management Practices in Bangladesh Delta

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Sustainable adaptation of water resource management practices remains a challenge in Bangladesh due to environmental and social settings, top down management strategy, lack of understanding and uncertainty in actors' behaviour. This current research focuses on Tidal River Management (TRM), a newly practiced water management process in the south-western coastal area in Bangladesh delta over the last two decades. TRM was initially a community practiced de-poldering system, which is now introduced as a formal water management process by the Bangladesh Water Development Board (BWDB) to prevent water logging/drainage congestion problems in coastal districts. However, still uncertainties hamper the effectiveness of TRM and its sustainable adaptation in the coastal area in Bangladesh. This paper aims to explore the space for social learning in the delta water management system that may be needed for understanding and improving adaptation capacity in a rural delta inhabitant. The contexts and constraints in TRM practices are investigated here to assess the process of learning and scope for social learning in a delta water management system. Four TRM cases are investigated based on direct participatory approach and some secondary information survey. This research finds that learning occurs in terms of technical and behavioural changes in process and practices of TRM. Community people have learned from their experiences; scientists and academic researchers have learned from information sharing and some experimentation; and finally the financial and technical authority have learned more theoretically from dialogues. However, this learning always appears to be happening at the individual level rather than a social learning process. There is major gap in disseminating information and integrating roles of stakeholders in the society. Single-loop learning is found in such delta water management practices whereas multi-loop social learning requires for better understanding and adapting sustainable management practices in the SW coastal areas in Bangladesh.

Learning in support of social-ecological change: A review of 52 case studies in natural resources management

Monika Suškevičs^{1,2}, Thomas Hahn¹, Romina Rodela^{3,6}, Biljana Macura⁴, Claudia Pahl-Wostl⁵
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Learning as used by natural resource management (NRM) literature often is described a normative goal (Rodela 2014), underpinned by certain expectations about the type of outcomes it can generate and how these can facilitate systemic change. Many studies have highlighted the need to empirically test conditions under which these assertions hold true in practice (Plummer & Armitage 2007; Ensor & Harvey 2014). The interest to study learning in the NRM practice has increased widely within recent decades, resulting in a growing number of empirical studies. In a recent review, Cundill & Rodela (2012) found that improved decision making is one common outcome of learning. Existing reviews however have not explored how the empirical literature has discussed wider impacts of learning and reflected upon the causal relationships between learning outcomes and their manifestations in the NRM domain.

In this review, we present ongoing research that aims to understand how these causal links are discussed in the literature. We aim to synthesize the ways in which selected empirical literature (N= 52) constructs (1) expectations towards and manifestations of learning outcomes in NRM, and (2) causal links between learning processes, their outcomes and the resultant manifestations.

We focus on learning-based approaches as one of the many paradigms in NRM. We depart from 'social learning' as a conceptual construct in the NRM literature but include also empirical research that has employed similar concepts, such as 'policy learning', and studies relying on transformative and experiential learning theories in NRM (e.g. Marschke & Sinclair 2009). We propose and apply an analytical framework that links different learning outcomes (like cognitive or networking aspects), with change in management practices, institutions and policies (manifestations of learning outcomes in the NRM domain) that are ultimately targeted at ecosystem change.

We are conducting a qualitative meta-synthesis (after: Hannes & Lockwood 2012) combining principles from systematic review, narrative and thematic synthesis. We searched Web of Science with a set of English language search terms. We selected and coded 52 relevant peer-reviewed empirical studies examining learning effects in the NRM context.

Selected case studies describe a variety of learning processes, from self-organizing networks to government or research-driven initiatives. Many of them cover an extended period of time (up to several years). Preliminary results indicate that cases report on a variety of both learning outcomes and their manifestations in NRM. Cases often reveal an explicit expectation towards profound changes (transformations) as an ultimate manifestation of learning in the NRM contexts at hand. Yet, many cases conclude that only small signs of such change were evident. Moreover, several cases report on failures where the desired change has not occurred and suggesting reasons for this. Links between different types of effects are not necessarily constructed as sequential, e.g. cases provide evidence on institutional changes but lack explicit focus on learning outcomes. A relative importance of learning in facilitating change is highlighted, but many cases underline a set of other factors (e.g. political will, identity of stakeholders) contributing to outcomes and empirical manifestations.

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Abstracts of speed talks

A question of method: tools for data collection and analysis across social learning scholarship

Romina Rodela, Wageningen University, the Netherlands and Södertörn University, Sweden

Research into transformative change processes is growing fast and in the thematic area of natural resource management is converging into a discourse that emphasises the role of learning, knowledge and trust (see: Rodela, 2011). This sub-group of literature, also known as social learning literature is diverse and uses a variety of data collection and analysis methods to explore, understand and prove that social learning has taken place. Some of the most commonly used are interviews, questionnaires, participant observation, but here are many other. However, different data collection and analysis methods have different characteristics and while these might help to disclose some aspects of interest, are still not disclosing all that. The purpose of this study is to look closer a few common misunderstandings about what commonly used data collection and analysis methods can really help to track down. This study will show some un-explored potential of currently used methods and suggest ways to develop compact and solid research designs.

Cited references

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On the conceptualization and assessment of social learning and its wider impacts

Joanne Vinke-de Kruijf and Claudia Pahl-Wostl, Institute of Environmental Systems Research, University of Osnabrück, Germany

Learning can be considered “social learning” when social interactions and processes lead to changing understandings of individuals involved, which become situated within wider social units (Reed et al, 2010). While social learning primarily refers to learning by interacting individuals, the effect of social learning may be much broader. For example, what has been learned by individuals involved may be integrated into represented organizations or can be used by external actors, organizations, groups or networks. This contribution aims to provide a better understanding of how “social learning” and wider, resulting learning processes can be conceptualized and assessed, for example, to allow for a comprehensive comparison of learning in different processes.

We depart here from an earlier study that models social learning as a process consisting of the following interdependent levels: (1) the micro-level where individuals interact; (2) the meso-level consisting of organizations; and (3) the macro-level, which is formed by the governance and societal context from a multi-scale representation of social learning that was introduced by (Pahl-Wostl et al., 2007). At each of these levels, learning involves different social units and has different meanings necessitating the development of distinct conceptions of learning (Bennett and Howlett, 1992; Diduck, 2010). Here, we distinguish between group learning, organizational and network and societal learning.

At the micro-level, social interactions across diverse process participants can lead to a change in understanding as well as an increase of knowledge and skills, i.e. group learning. These changes may take the form of single-loop or double-loop learning. In most contexts, the latter one (involving more structural changes) is more valuable than the former one. Additionally, learning may take the form of substantive, relational or normative learning. As normative learning is more likely to occur over a longer period of time, an assessment of substantive and relational learning provides an adequate understanding of group learning in processes that occur over a period of several years (cf. Baird et al, 2014). When assessing group learning, one should keep in mind that substantive and relational learning tend to be partly but not strictly complementary processes. In other words, when assessing learning, a process that results in a combination of substantive and relational learning should be valued higher than a process that only results in of them.

What has been learned by process participants may be diffused to the meso-level or the macro-level. Learning at the meso-level refers here to the successful integration of lessons learned into the represented organizations, i.e. organizational learning. At the macro-level, we focus on learning by actors external to the process, which we conceptualize as network and societal learning. To assess the degree of organizational learning as well as network and societal learning, one can build upon the knowledge utilization literature (cf. Crona and Parker, 2012). Knowledge utilization can be assessed both from the perspective of the source (i.e. the process participant) and the receiver (i.e. the person, organization or network external to the process). For the assessment of knowledge utilization (e.g. by a specific organization or an external actor), the relevant literature distinguishes between progressive utilization stages, such as, transmission, presentation, interaction, adoption, influence and implementation of knowledge. A weighted average of how an actor scores on these diverse utilization stages can help to assess and compare the extent to which group learning contributes to organizational learning or network and societal learning.

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