



Collaborative modelling as an approach for social learning in flood risk management

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Currently a change of paradigm from flood protection towards flood risk management (FRM) is taking place, which calls for active involvement of stakeholders and collaborative decision making. In the complex and interdisciplinary field of flood risk management which is characterised by complexity, uncertainty and multiple social perspectives social learning is often seen as a promising approach for collective decision making in societal challenges.

The paper's main aim is to describe how social learning could be realised by collaborative decision making as part of participatory governance and how they can be supported by socio-technical approaches and instruments. We describe the socio-technical approach of collaborative modelling (CM), and features of the web-based tools for supporting social learning and collaborative decision making, which were developed and tested in a case study on FRM in Northern Germany and England. The underlying framework of CM is described and the different phases with regard to transdisciplinary cooperation with stakeholder is illustrated. The CM tools are described and reflected against a set of six criteria for cognitive learning in social learning processes. We illustrate how they can support learning about: (a) the status of the problem; (b) possible solutions and the accompanying consequences; (c) other peoples' and groups' interests and values; (d) one's own personal interests; (e) methods, tools, and strategies for better communication; and (f) practicing, using and applying holistic and integrative thinking.