Storylines to improve science communication to practitioners in river management

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Increasingly more research data are becoming available to open new possibilities for practitioners in developing sustainable river management strategies. However, the format and visuals used in scientific publications are often not suitable to highlight the context of research and the contribution to practice. The temporal or spatial scale of the sustainability issues and their consequences often makes difficult to imagine visual examples that explain the practical contribution, the assumptions or limitations behind. To improve the accessibility of research findings and aid discussions with practitioners at the science policy-interface, we further developed and formally evaluated a visual storytelling approach as part of the RiverCare online communication strategy. RiverCare is a Dutch research program in which 20 researchers from 5 universities study the hydro-morphological and ecological consequences of recent river interventions to improve their design, integrated and collaborative maintenance. The storylines are online and scrollable overviews of main scientific publications into about 1000 words that aid practitioners (i.e. river managers, advisors and other water professionals) to understand the context and contributions of the methods, models and tools that are being developed. Drawing on the narrative theory to structure the storyline elements, we followed a user-centered and collaborative design approach. We combined texts with appealing and interactive visuals using the Storymaps tool of ArcGIS to create the first storyline examples. We analyzed feedback of about 40 practitioners that was collected during workshops to evaluate their engagement with and understanding of the storylines. Here we presented the main conclusions of our experience that we applied in creating new storylines. We better considered the narrative engagement and design elements and are currently exploring with the aid of interested RiverCare researchers open access libraries to create the storylines and the interactive visualizations of their publications.