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Interactive comment on "Promoting interdisciplinary education – the Vienna Doctoral Programme on Water Resource Systems" *by* G. Blöschl et al.

M. Sivapalan (Referee)

sivapala@uiuc.edu

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Promoting interdisciplinary education – the Vienna Doctoral Programme on Water Resource Systems by G. Blöschl, G. Carr, C. Bucher, A. H. Farnleitner, H. Rechberger, W. Wagner, and M. Zessner

I enjoyed reading this paper. In the light considerable efforts being made to advance inter-disciplinary training of hydrologists and water scientists, the Vienna doctoral program is a significant effort, maintained over a significant period of time, and for this reason, it could make a significant impact.

My main complaint, and I raise this in the spirit of a "devil's advocate" is that the paper addresses the issues involved in setting up an inter-disciplinary education in a rather mechanical way. In particular, many of the things I read I have seen previously in successful inter-disciplinary undergraduate programmes (e.g., integrating the disciplines, maintaining depth, teaching subjects remote from the students' core training). Perhaps this is intended – but in my opinion there is an opportunity to aim higher. This one is a doctoral programme, focused on research (not just imparting knowledge, but generating new knowledge), and something more is expected. Besides, the Vienna Doctoral Programme is a rather unique one in terms of scope and funding, and one would not expect that it will be duplicated in other places (I hope it is, but think it is unlikely). So the mechanics is unlikely to be informative to educationists.

What would be more informative is if the interdisciplinary programme is leading to students asking and researching "new" questions, or address problems in novel ways. It is clear that the students are being provided opportunities to think broadly, share expertise together, and get exposed to broader thinking. However, is there evidence that this has led to new questions (that may not have been thought of), exposure to new concepts and new ways of doing things?

In a review of the University of Illinois Hydrologic Synthesis project, the advisory board consisting of Tom Dunne, Will Graf and Susan Avery, challenged the project leaders with criticism along these lines: "Much of the proposed work appears to us to be a search for highly detailed, multi-component explanations rather than multi-disciplinary syntheses relying on connections where one component offers most of the explanation".

Perhaps it is too soon to answer this question, but with such a highly funded interdisciplinary doctoral programme, I will be looking for new breakthroughs simply because the students are able to break down traditional barriers and constraints and look at problems with more freedom. The question is if this is happening already, and if so can the authors provide examples to illustrate it.

Apart from this comment I am otherwise supportive of publication of this paper in HESS.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 8, 9843, 2011.