

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

**Anonymous Referee #1**

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General comments:

This paper as part of the special issue “Hydrology education in a changing world” is reporting about the Vienna Doctoral Programme on Water Resource Systems. It is an excellent contribution to the important issue of interdisciplinary hydrological education about which rarely publications in scientific journals are available. The authors share their experiences with others who are planning to set up such a program, which is the main value of the paper for the hydrological community.

The paper discusses aims, strategy, implementation and assessment of the program

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as well as reports on learnt lessons from the first two years of experience. The rigorous selection process of PhD candidates is demanding but fundamental to the success of the program. The careful development and defence of the research proposal within the first 12 months by the students ensures high level scientific research. Integrating disciplines by three levels: joint groups, joint research questions and joint study sites seems a very well working strategy. On the other hand, maintaining depth is extremely important in such a program to avoid superficial knowledge over many disciplines. This is ensured eventually by the requirement that each student’s thesis must be comprised of four peer reviewed journal papers (submitted as first author), which is a very high demand. With the description of their doctoral program the authors provide many good ideas for educational issues in other MSc or PhD programs like visually explicit teaching, joint supervision, brainstorming sessions, journal clubs, etc.

Comparing such a doctoral program with classical individual PhD studies shows several advantages of the former over the latter like learning team-working, joint training on special scientific subjects, mutually motivation between the students and likely also enhanced collaboration between supervisors of different disciplines. The four years intended time to complete the PhD is still a reasonable short period compared to the time individual PhD students need, often doing project work and being engaged in education and administration at the same time. However, running such an interdisciplinary program is certainly quit demanding in terms of funding and human resources.

Some questions and suggestions for further discussion:

- 1) Page 9851: 23 students are engaged in the program, but only nine positions were advertised. Where are the other 14 students coming/ funded from?
- 2) Page 9863: How much interaction is intended/ going on between the supervisors and the students in producing the research proposal regarding general topics, research ideas, working plan, etc? What happens if a student fails to deliver a sufficient research proposal?

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- 3) Page 9864: What is the required status on the four journal papers of the students: submitted, accepted or published considering the sometimes long manuscript turn around time of the journals? What happens if a student fails to produce four papers?
- 4) Are the PhD students also involved in academic administration or teaching?
- 5) Will all selected students reach the final goal and earn a PhD? What is the likely success rate?
- 6) Having 600 applications for nine positions is quite a lot. This number is surprisingly large given the current difficulties in finding suitable candidates for announced PhD positions in some European countries. Does this come from the attractiveness of the program, the reputation of the organisers, the international advertisements, etc? Can the authors comment on that?

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