



Effective small group teaching strategies for research supervision – A case study

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UNESCO-IHE's students are unique in several aspects: they are mid-career professionals separated from their last university experience by a number of years in the profession, they are from diverse social and cultural backgrounds, and they often have relatively clear understanding on the diverse problems in the practice of engineering in their respective countries and are focused on solving those. As a result of the diversity in many forms, managing effective groups during the research phase of the UNESCO-IHE master's course pose considerable challenge. In this paper, we present a unique combination of tools and approaches that are employed in managing a small group of students (between five and ten) in one study area, who were working on diverse research topics that had the common denominator of mathematical modelling. We blend a number of traditional (e.g. seminars, group discussions, focused training sessions) and non-traditional (e.g. Using collaboration platforms like WIKI, peer-learning) approaches so that the cohesion of the group is maintained and every member benefits from being a part of the group. Four years of experience with employing this blend of tools on a six-month long master's research programme showed us:

1. The approach motivates the students to perform focusing not only on the end-goal of their research study, but on the process of day to day work that lead to that goal.
2. The students' self-confidence is often enhanced by being a part of close-knit group.
3. Initial workload of the teacher increases significantly by this approach, but later this is more than compensated by the fact that the teacher has to do little maintain the momentum.
4. Both strong and not so-strong students equally benefit from the approach.
5. A significant number of students develop a keen interest in being involved in research further. (e.g. engaging in doctoral studies.)