

PROMOTING TEAM WORK IN UNDERGRADUATE RESEARCH PROJECTS

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Group research experiences encourage problem-solving and critical-thinking. They foster independence by providing an experience where problem-solving is completed in a group, making a smoother transition to independent research.

Good practice in guiding undergraduate research projects includes explicit teaching of group-work and research skills. The use of self and peer-assessment can ensure that the group-work does not become a vehicle for 'free-riders', students who make minimal contribution to the project, yet are rewarded equally with their peers.

In a first year Biology topic, students in small groups investigate a cutting-edge field of molecular research, propose a hypothesis and design an experiment. Research is presented via a poster and an oral presentation. The majority of the project is carried out independently in small groups with minimal teaching support. Self and peer-assessment is used to encourage reflection and evaluation of the process.

To evaluate the student experience of the research project, a survey was administered at the conclusion. Students reported that the research project helped them to learn about the scientific method and develop communication skills required for group-work. Students further reported that the research project challenged them intellectually and gave them an understanding of what is required to undertake independent scientific research.

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