

Blending the Foundations: Pilot Testing a Blended Environment for Foundations of Conservation (CONS 200)

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INTRODUCTION

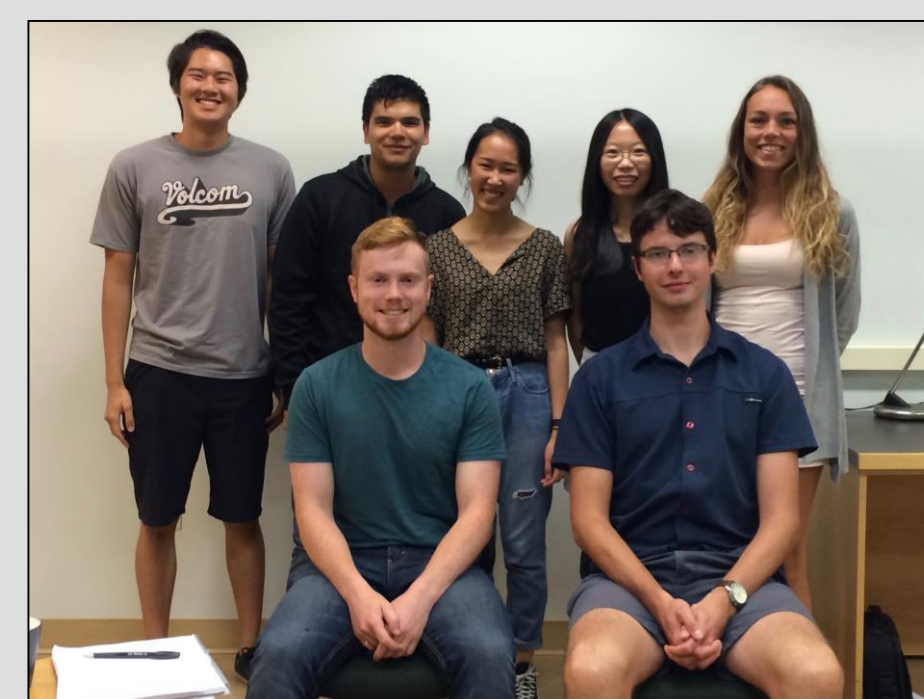
This project was designed to enhance the learning experiences of the ~250 students who take CONS 200 (Foundations of Conservation) each year. Feedback from former CONS 200 students suggested emerging preferences for a case-based and blended environment.

The project had three objectives:

1. Develop materials for a minimum of 2 new case-based modules (two weeks each) designed for a blended learning environment.
2. Pilot test new active, experiential and blended learning approaches and novel forms of assessment through the new cases.
3. Develop and implement a set of indicators to evaluate the impact of the project on student preferences and views about teaching and learning

APPROACH

We adopted a collaborative, team-based approach with a high level of student involvement, and leadership to achieve our objectives. In addition to the PI, our team included two graduate teaching assistants (GTAs), 1 undergraduate teaching assistant (UTA) and a 5-member undergraduate student advisory committee (CONS SAC).



Project Team (from left to right, clockwise): Thomas, Ricardo, Michelle, Alice, Margot (Student Advisory Committee); Andrew and Curtis (TAs), PI Dr. Shannon Hagerman (not shown).



Presentation of an international case study by the CONS SAC.

Collaboration occurred at all phases of the project (Figure 1). Examples of student leadership and collaborative activities included:

- Student-led development of cases and learning activities
- Frequent peer-peer collaboration, review and feedback of new materials and proposed new forms of teaching

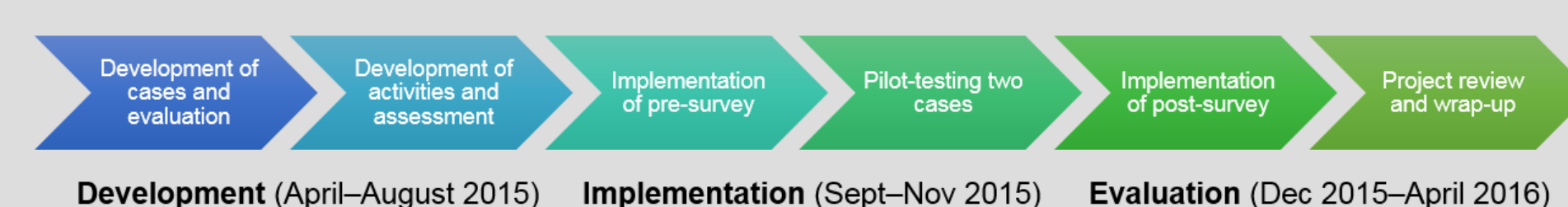
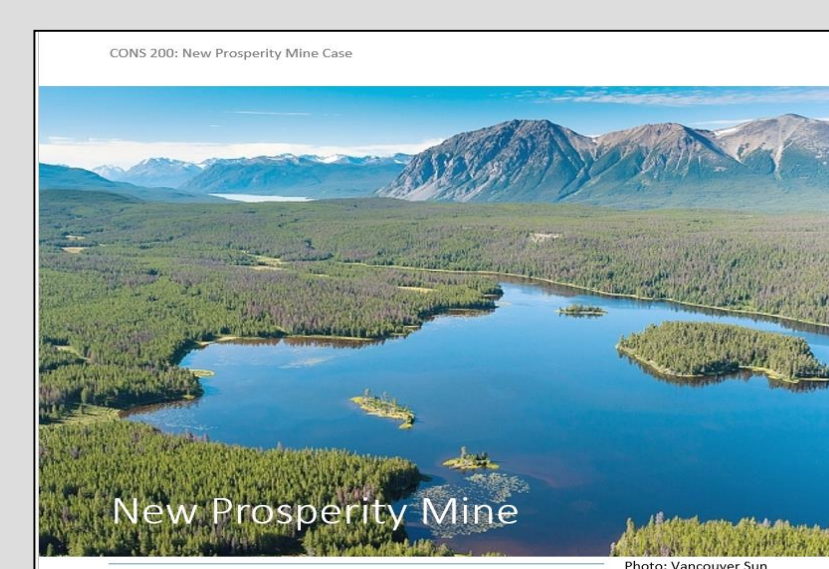
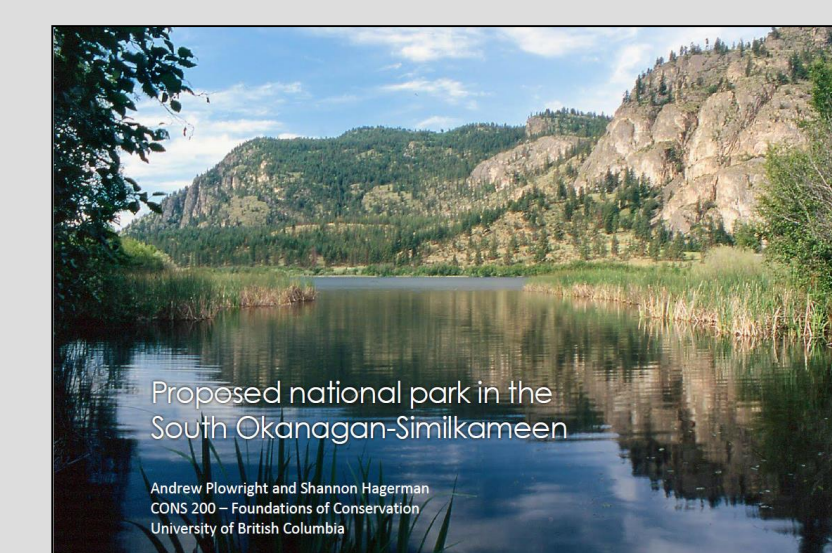


Figure 1. Project phases and timelines

CASE-BASED BLENDED MODULES

Cases

Our team developed five new case-based modules. Each case describes the social and ecological dimensions of a specific conservation dilemma. The cases were selected to represent domestic and international contexts, as well as urban and “traditional” conservation areas. Cases include detailed summaries as well as links to multi-media materials including video clips, news articles and policy documents.



Learning activities

For each case, we developed active, experiential and flexible learning activities including: debates, self-guided field trips, a public survey, and reflective blogs.

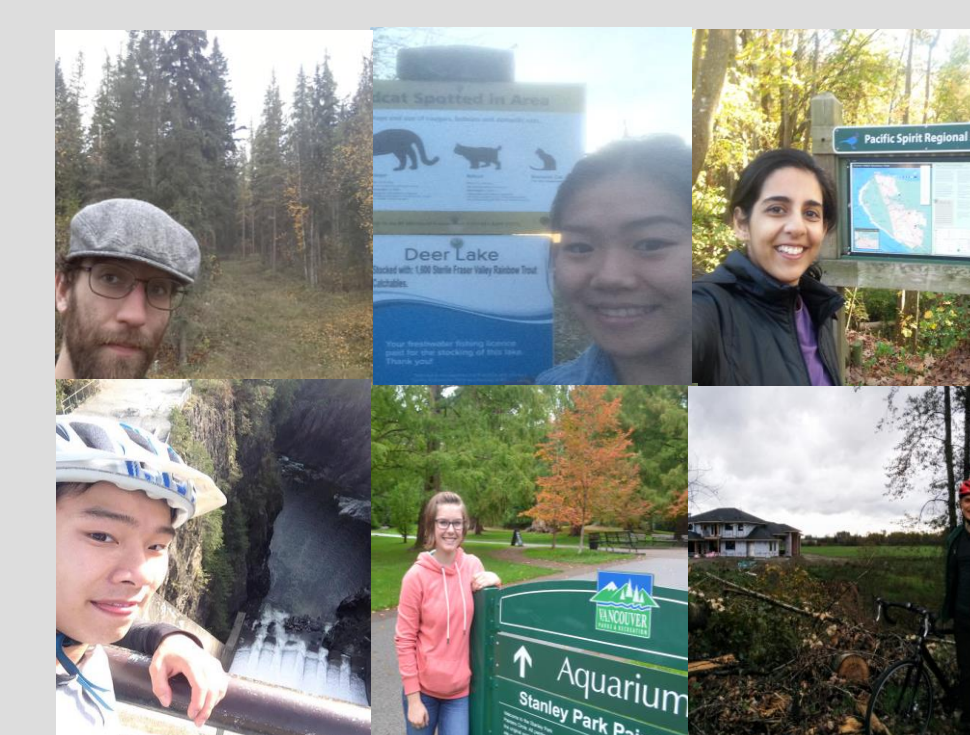


Figure 2. Sample student selfies from self-guided field trip activity.

Example Learning Activity: As part of the Rouge Urban Park Case, students participated in a self-guided field trip (Figure 2), followed by a reflective blog post that received peer-comments, and TA feedback.

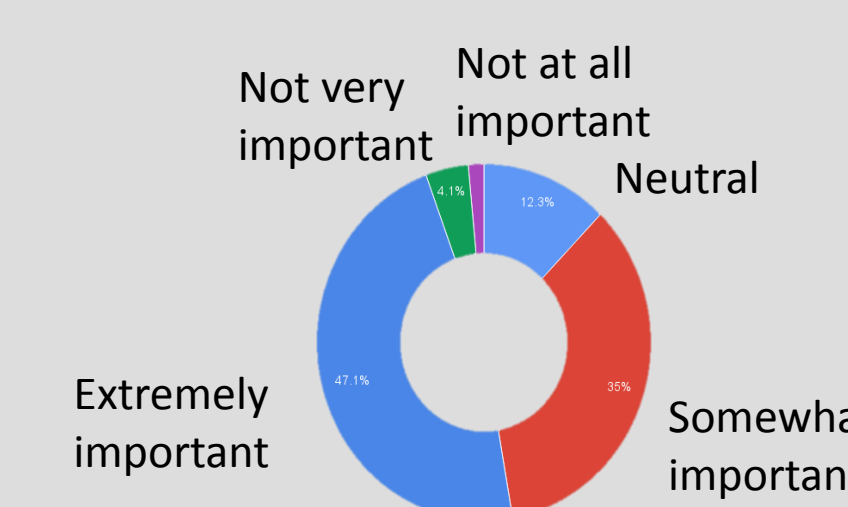


Figure 3. Public responses (N= 799) to the student administered survey question: *How important are national parks, wildlife reserves, and other forms of protected areas to you?*

Example Learning Activity: As part of the South Okanagan National Park Case, students administered a public survey to elicit public values about protected areas (Figure 3). This activity included 5 questions. Results were discussed in class.

IMPLEMENTATION AND EVALUATION

Pilot-testing

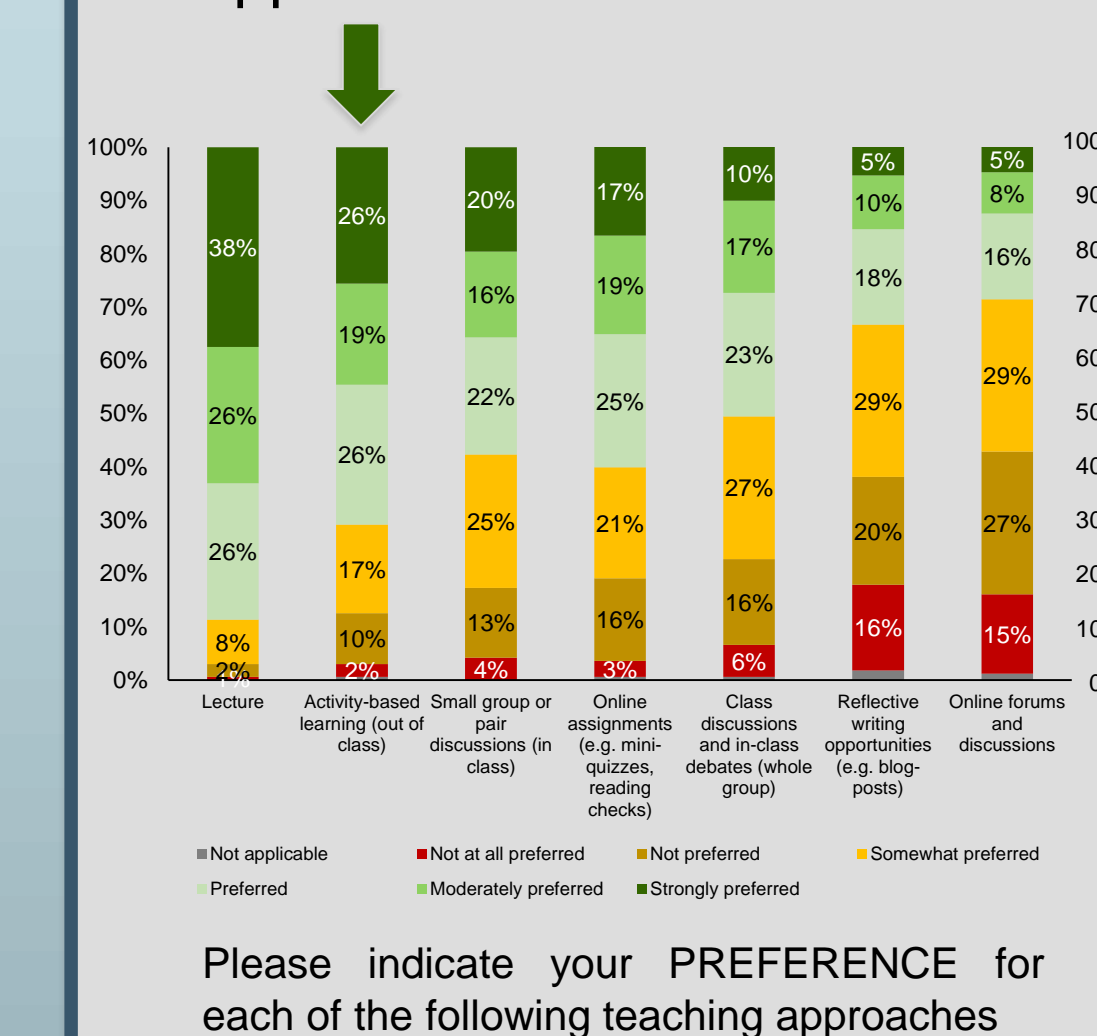
Two case-based learning modules comprising two weeks each were pilot-tested during the Fall 2015 term. Each module involved a combination of in-class (e.g. debates) and out of class (e.g. self-guided field-trip) activities.

Evaluation

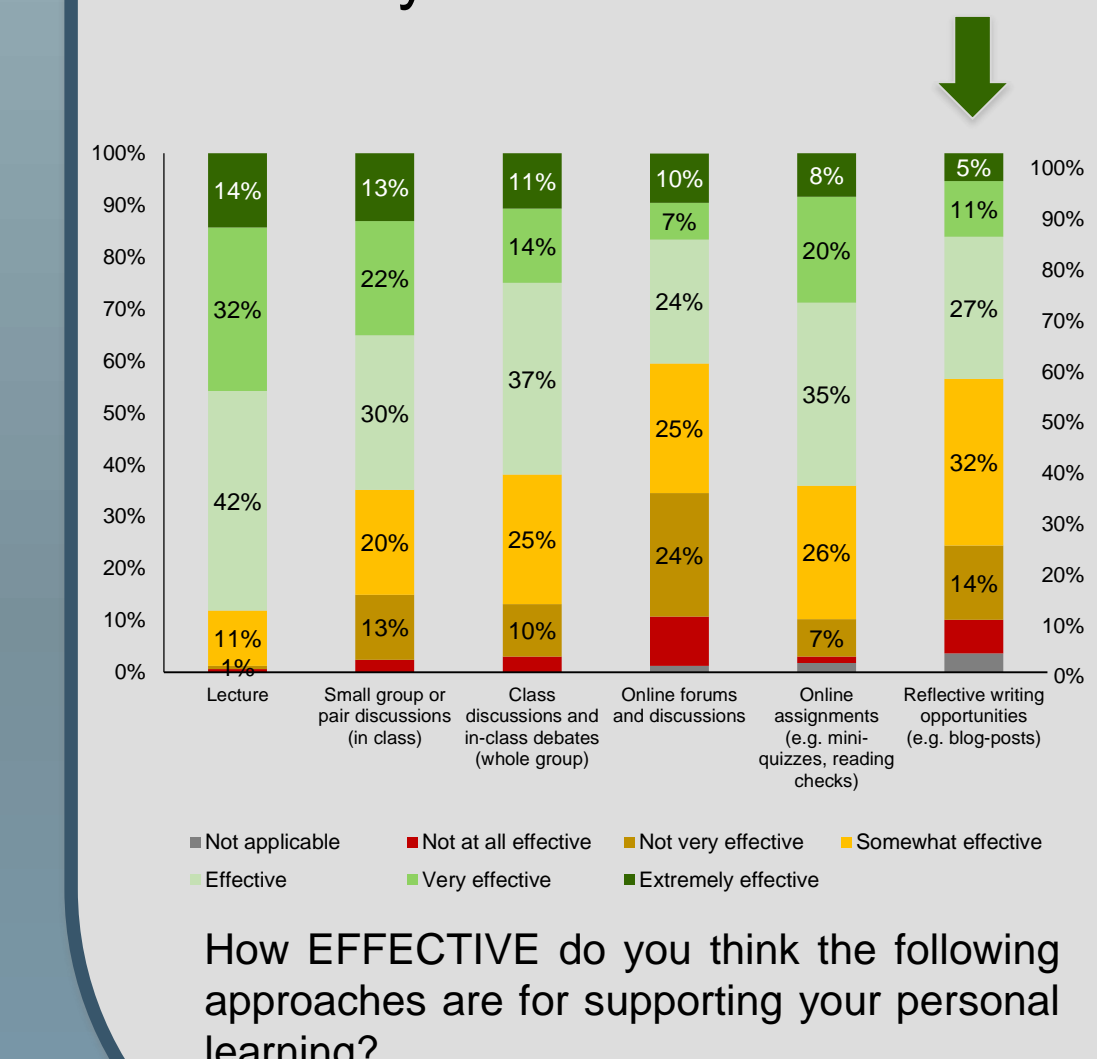
We conducted a pre- and post-course survey to evaluate the impact of the project. We were interested in student views about preferences for, and perceived effectiveness of different methods of teaching and learning. Additionally, we sought to evaluate the project from the perspective of the CONS SAC through a separate pre- and post project questionnaire (data not shown).

Pre-survey (N = 168)

45% of students “strongly” or “moderately preferred” out-of-class activity-based teaching approach.

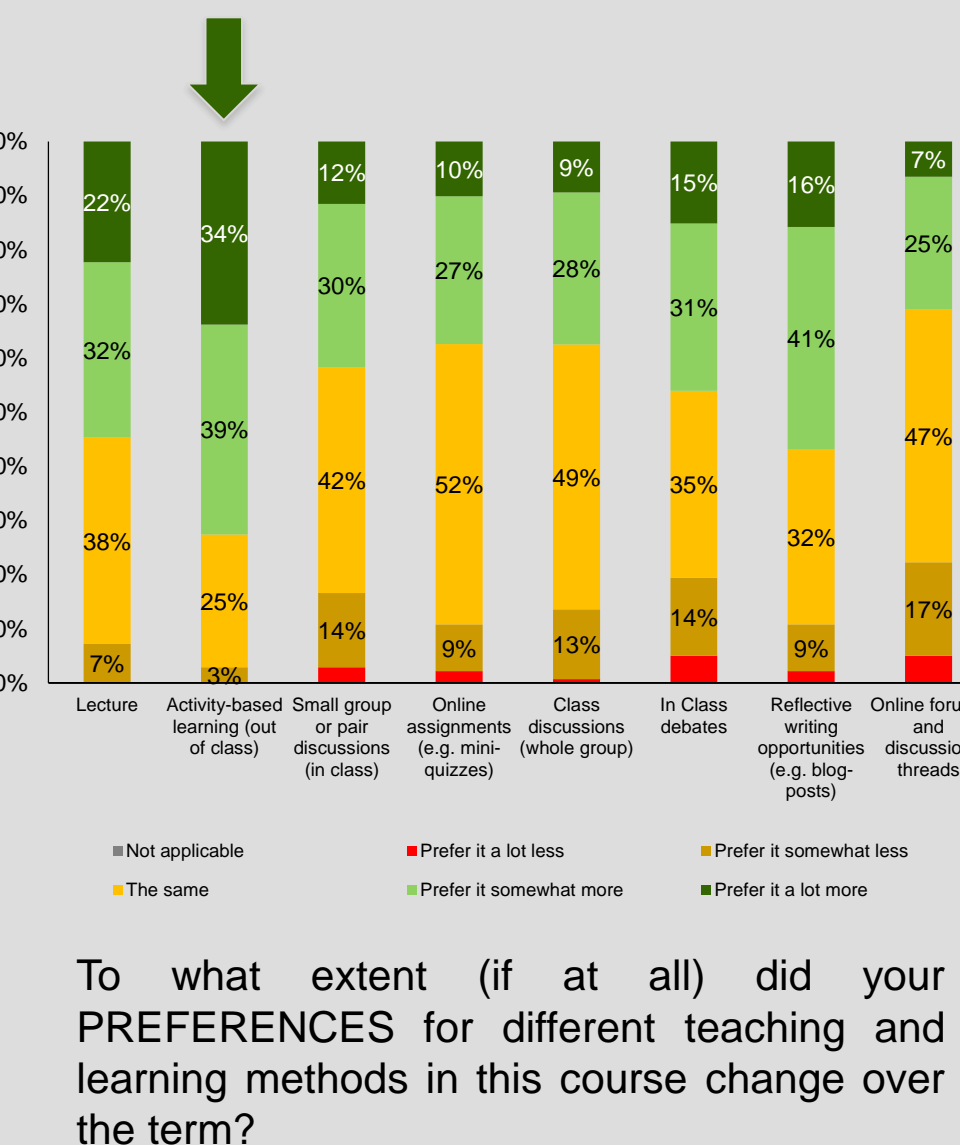


16% of students viewed reflective writing as “extremely” or “very effective.”

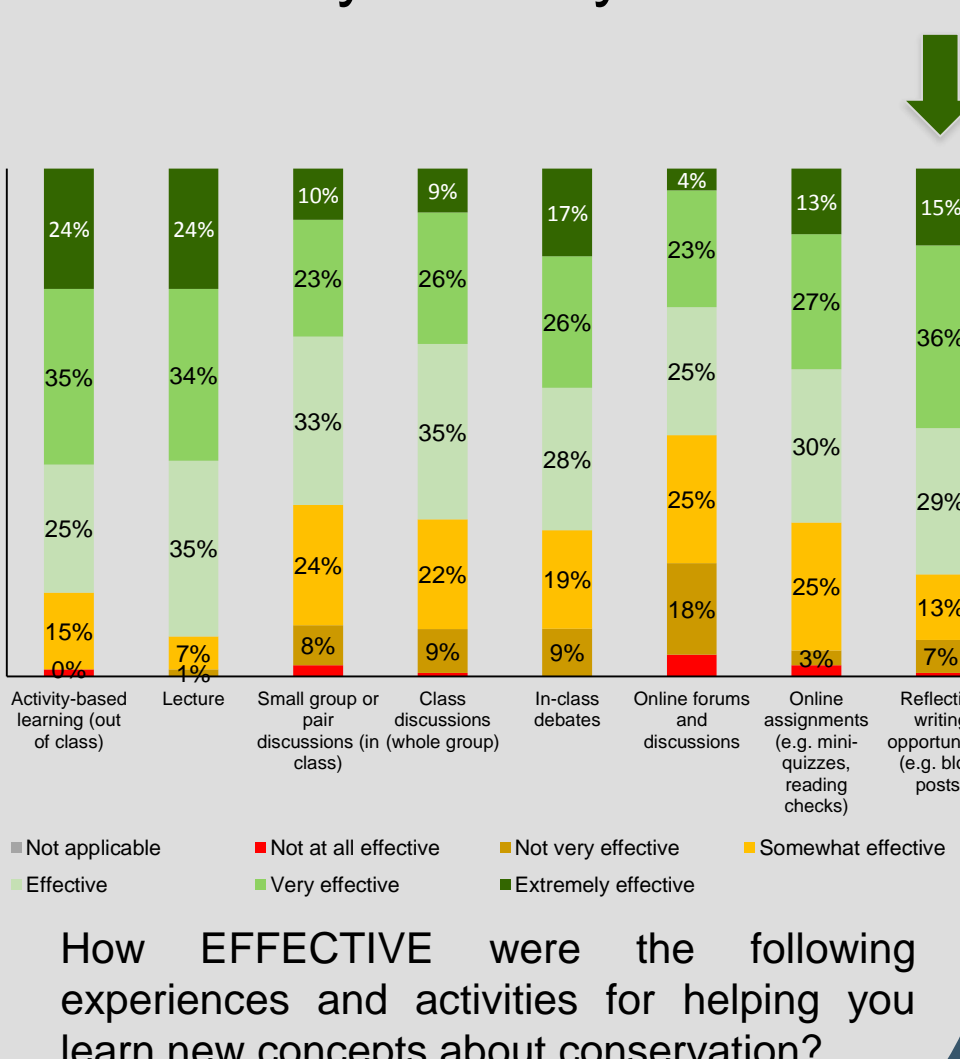


Post-survey (N = 139)

73% of students preferred out-of-class activity-based teaching approaches “a lot” or “somewhat more.”

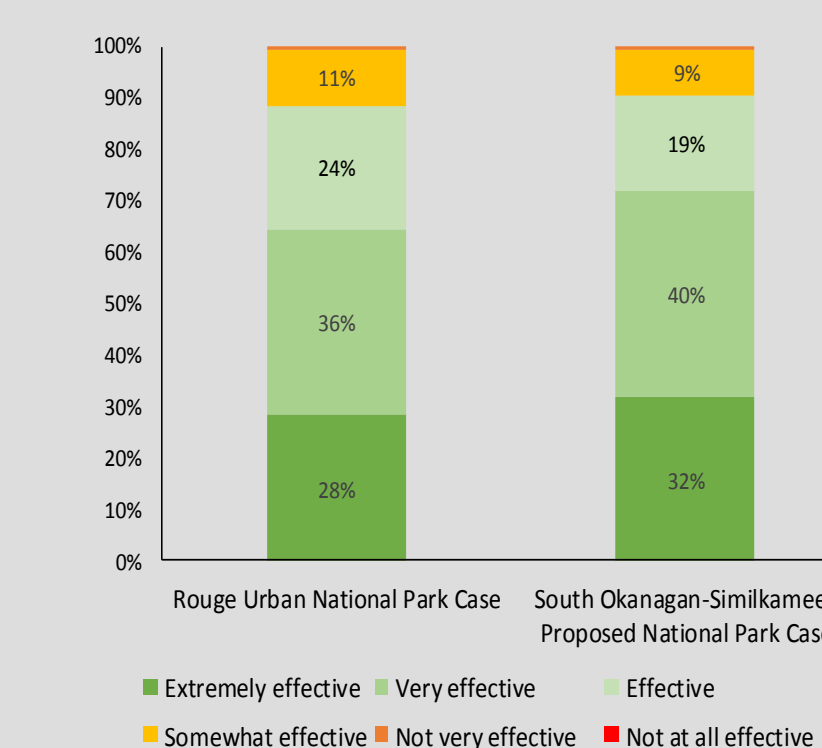


51% of students viewed reflective writing as “extremely” or “very effective.”



EFFECTIVENESS OF CASES

Overall, how EFFECTIVE were the two case-based learning modules for helping you learn new concepts about conservation?



88-91% of students viewed the two case-based learning modules as “extremely,” “very” or “effective” for helping them learn new concepts about conservation.

SUSTAINABLE BENEFITS FOR STUDENTS

- Repository of five case studies, learning activities and new forms of assessment that can be used with future CONS 200 students
- The creation of a network of engaged undergraduate students who are keen to contribute to future CONS 200 cohorts (e.g. volunteering as debate facilitators)
- Graduate and undergraduate TAs had multiple opportunities to reflect on their own teaching and learning throughout the project. TAs indicated that these experiences would inform their future work in other settings.

REFLECTIONS AND RECOMMENDATIONS

Based on the project evaluation reported above, we recommend the continuation, and possible expansion of blended case-based learning for CONS 200. We highlight two key contributing factors for success:

1. **Student involvement at all stages of the project.** Students took on leadership roles and reported a strong sense of ownership that contributed to high quality outputs.
2. **Resources for implementation.** Blended case-based learning activities require substantial TA feedback and interaction. Additional TA support for case-based learning was essential to this project, and will be to support future efforts.

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