

What happens when you transform a large introductory biology course?

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The course was restructured with the following aims:

- Reduce workload for students and staff
- More student activities through the semester
- Students helping students
- Reduce failure rate and drop-out

COURSE SET-UP

- BIO101 - a compulsory course for bachelor students in biology
- Divided into three modules: microbiology, zoology, and botany - all with similar schedule (Figure 1)
- 4-6 instructors
- Lab report must be approved to be able to take the final exam

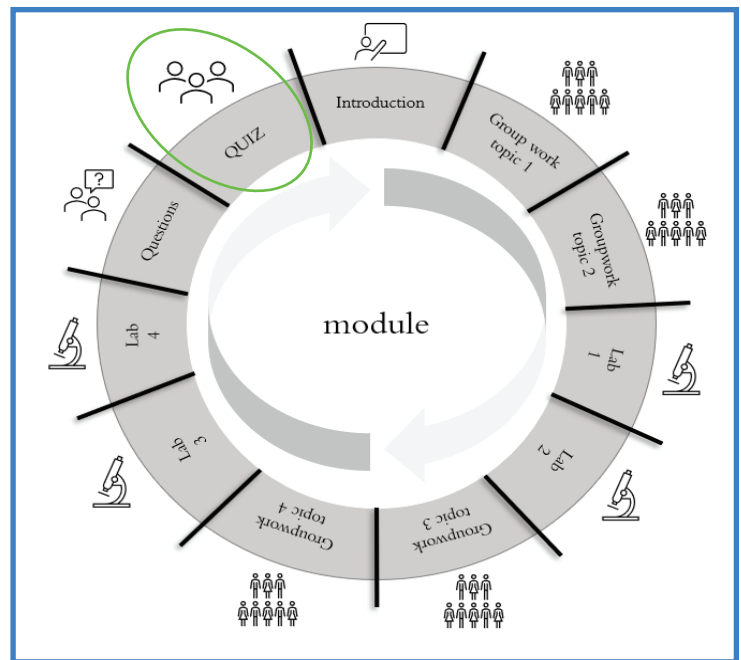


Figure 1. Set-up in each of the three modules

RESULTS

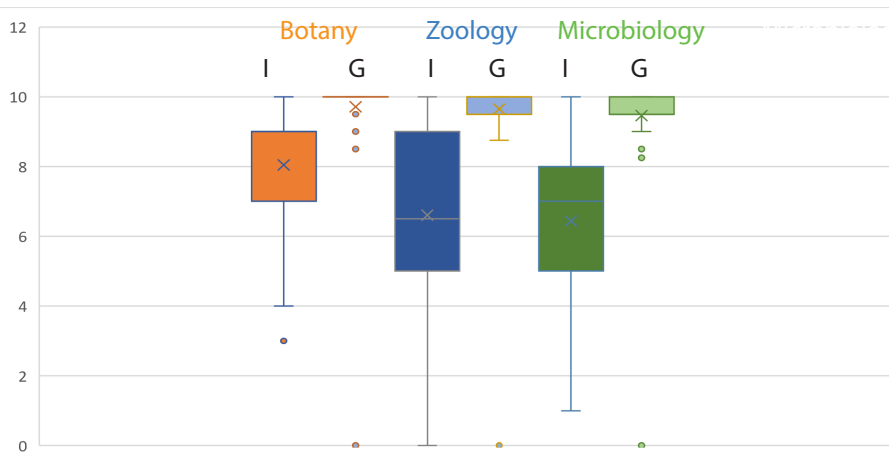


Figure 2. Summary of scores on individual tests (I) and group test (G). The questions were the same for both quizzes.

What's new?

- Changed to more team-based learning
- Seminars instead of lectures
- Approving labwork in the lab
- Final quiz done individually and in groups (Figure 2)
- Cooperation between instructors and study administration

Outcomes

- More active students, no lectures, videos and seminars
- The three modules more similar
- Fewer tasks during lab-days, less stress
- Less work with the report that students need to hand in, for both students and instructors
- Higher quality lab reports
- Labwork and quiz are counting towards the final grade
- Fewer students failing