

Appendix 3. Instructor survey

1. How many times have you taught this course before?
2. How many years have you taught college biology?
3. How many hours did you devote to teaching natural selection in lecture this term?
4. Approximately what proportion of the students enrolled in your course attend regularly?
5. Approximately how many students were in each section of your course?
6. What is your position at your institution?
 - a. Tenure track
 - b. Non-tenure track
7. Does your course include students who are not biology majors?
 - a. No, this course is taken primarily by students majoring in biology.
 - b. Yes, but over 75% of students in this course are biology majors.
 - c. Yes, but 50-75% of students in this course are biology majors.
 - d. Yes, and less than 50% of the students in this course are biology majors.
 - e. Yes, but I'm unsure what percentage of students are biology majors.
8. Richard Hake (1998) defines interactive engagement methods as "designed at least in part to promote conceptual understanding through interactive engagement of students in heads-on (always) and hands-on (usually) activities which yield immediate feedback through discussion with peers and/or instructors." Examples of these activities include group work, classroom discussions, in-class writing, and clicker questions that require deep thinking. *How often did you use active learning, interactive-engagement, or other student centered teaching activities used in the LECTURE portion of your course?*
 - a. Never (or almost never)
 - b. Once per week
 - c. Once per class
 - d. More than once per class

9. How often did you use active learning, interactive-engagement, or other student-centered activities during the portion of the course dedicated to teaching natural selection?
- Never
 - Once
 - Twice
 - Three times
 - Four or more times
10. How often did you employ the following activities in the lecture portion of your introductory biology course? [Instructors replied to each of the following]
- Clicker questions that test conceptual understanding
 - Student discussions in pairs or small groups to answer a question
 - Activities in which students use data to answer questions while working in small groups
 - Individual writing activities that require students to evaluate their own thinking
 - Classroom-wise interactions that require students to apply principles presented in class to a novel question
 - Other small group activities
- Never (or almost never)
 - Once per week
 - Once per class
 - More than once per class
11. Students often enter introductory biology courses with misconceptions about natural selection. Some of the more commonly documented misconceptions include a belief that individuals evolve because they need to, a belief that individuals gain and lose traits due to use and disuse, and a belief that the environment directly causes evolution within an individual's lifetime and that those changes are passed on to offspring. *Within your curriculum, do you directly target misconceptions? Choose all that apply.*
- Yes, I explain to students why misconceptions are incorrect.
 - Yes, I use active learning exercises and otherwise make a substantial effort toward correcting misconceptions.
 - No, I do not specifically target misconception.