Motivation

- Students are members of a society that votes, makes personal health choices, and purchases goods and services.
- Scientific literacy is crucial to being an informed citizen.
- 87% of the NDSU student population are considered non-science majors.
- Benefits of inquiry-based instruction and collecting student-generated questions:
  - Assessment tool to identify misconceptions
  - Promote a student-centered, active learning classroom

Investigation Question

- How do non-science majors’ participation in an introductory biology lab course change their question complexity over one semester?

Differences in Responses Between Surveys

Methodology

- Surveys given to BIOL 111L, a Concepts of Biology course for non-biology majors, Spring 2017 (N=195)
- Analyzed questions across all 4 surveys (N=41) and across Pre and Post surveys (N=109)
- Two coders with an average inter-rater reliability as measured by Cohen’s Kappa of 0.822
- Limitations:
  - Prompts for pre and post surveys differ from antibiotic resistance part I and II
  - Total submitted questions vary between each survey
  - Lab teaching assistants (TA) had an affect on question complexity

Survey Prompts

Example Student-Generated Questions

Significance in Coded Student-Generated Questions


References

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