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Increasing Student Interactions with Learning Objectives

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Increasing Student Interactions with Learning Objectives

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Literature Review

Emphasis on well-designed student learning objectives (SLOs), with thorough guidance on constructing SLOs

Known benefits of students being informed of expectations

Abundant resources for measuring SLO mastery

TAKE-AWAY: Transparency of expectations through SLOs aligned with instructional strategies and assessments

MISSING: strategies for direct student interaction with SLOs

Methods

Course: Intro to Environmental Science
 Test Group: n=34
 Control Group: n=114



Strategy	Number of Lectures
3-2-1 (4)	2
Concept Sort (4)	1
Consensogram (4)	1
Flow Chart or Concept Map (4) (5)	1
Jigsaw (6)	1
Matching (match objective to activity)	3
One-Minute Paper (7) (5)	1
Submitting Questions (5)	1
Teach a Topic	1
Think-Pair-Share (8)(4) (6)	2
Tic-Tac-Toe (4)	3
Graph a Change (5)	3
Quotefalls	2

Strategies in Action

Omnivores and herbivores are not considered producers because they must consume other organisms to obtain energy for life.

Because omnivores (a type of heterotroph) do not make their own food, they are not found on the first trophic level.

Autotrophs make their own food from inorganic sources so they are found in the first trophic level of a food web and are eaten by consumers on higher trophic levels.

Matching: Objective to Activity

- Diagram the sinks and fluxes carbon, nitrogen, and water cycles
- Identify the form of nitrogen, carbon, and water found in different stages of their respective cycles
- Explain the role of microbial communities in the nitrogen cycle
- Speculate on how humans have influenced the carbon, nitrogen, and water cycles on global and regional levels

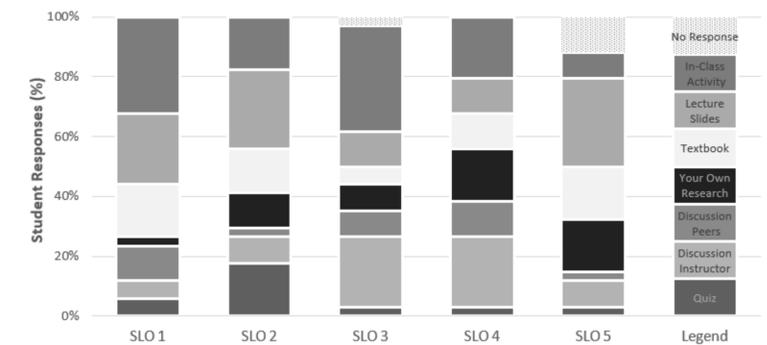
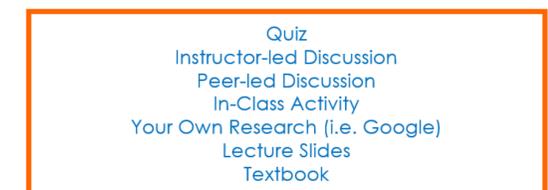
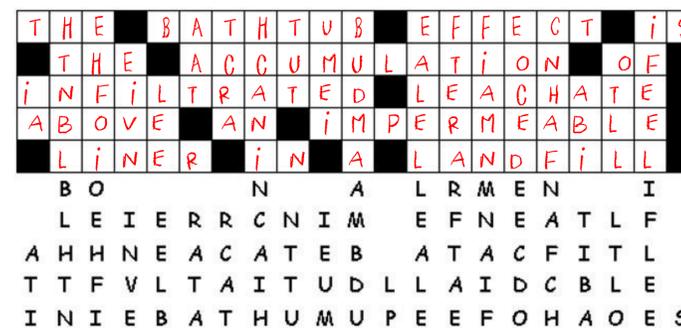


Figure 1: Student Responses to Matching Activity



Results & Conclusions

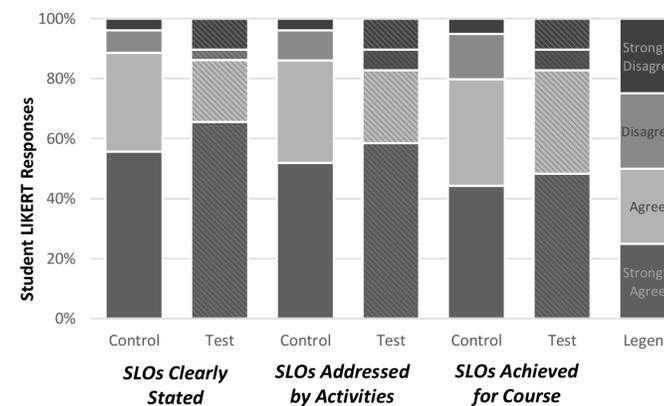


Figure 2: Student Opinions from EOCE

SLO-targeted strategies did not have statistically significant impact on student opinions of SLOs

Multiple strategies presented for the purpose of meaningfully incorporating SLOs into the classroom

Future work: investigate in SLO-targeting strategies influenced student content mastery

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