

Different(iated) Environmental Education

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Background

- Environmental education is defined as a process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment.
- There is a need for environmental education that maximizes retention, passion, and involvement.
- *Differentiated instruction shows promising results in classrooms compared to **traditional instruction, which may be translatable into an environmental setting.

*Differentiated instruction: a range of different avenues for helping children in understanding new information in terms of acquiring content and processing, constructing, or making sense of ideas

**Traditional instruction: teacher-centered delivery of instruction to classes of students who are the receivers of information

Research Question

What are the challenges and opportunities of both traditional and differentiated instruction in the field of environmental education?

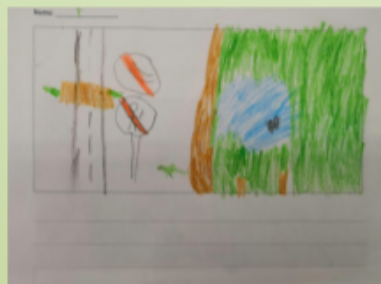
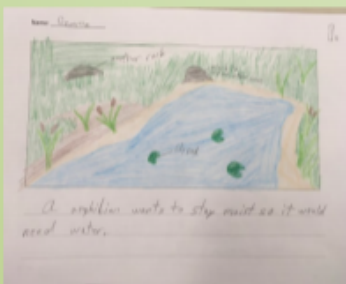


Figure 1. shows two drawings completed after differentiated instruction was given

Internship and Methods

- My internship with Oxbow Farm and Conservation Center focused on creating lesson plans to be implemented in elementary school classrooms.
- Data was collected during a lesson based around native amphibian species, where we administered "knowledge checks" after both traditional (lecturing) and differentiated (scenario-based roleplaying) instruction.
- Knowledge checks consisted of drawing and storytelling

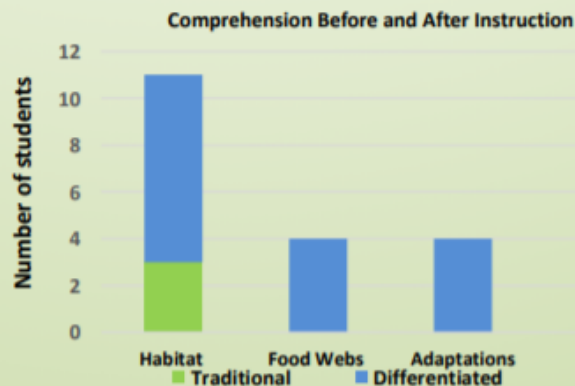


Figure 2. depicts student's improvement after different instruction



Acknowledgements

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Results

- **Every student** showed an increase in understanding in some topic after differentiated instruction (as seen through their knowledge check)
 - **73% of students** showed an increased understanding of habitats
 - **37% of students** showed an increased understanding of food webs
 - **37% of students** showed an increased understanding of adaptations



Figure 3. shows students sharing and comparing their drawings of habitats

Significance

- Differentiated instruction has a positive corresponding effect on student's learning and achievement.
- Integrating differentiated instruction into environmental education in the future can drastically benefit student's education and bolster environmental stewardship.