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?*

**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

**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

**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.

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

**Figure 2.** depicts student’s improvement after different instruction

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