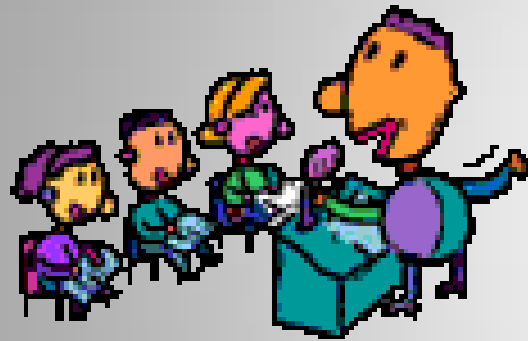


# DUMPING THE 'EMPTY-BUCKET' SYNDROME VIA STUDENT-DESIGNED RESEARCH PROJECTS

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“...MOST BEGINNING  
COLLEGE STUDENTS ...SEE  
THEMSELVES AS EMPTY  
BUCKETS BEING FILLED  
WITH DATA BY THEIR  
PROFESSORS.”

*William Perry*

# OCE1001 LAB (1-CREDIT HR)

- ◉ **DESIGNED SPECIFICALLY FOR STUDENTS ENROLLED IN AA TRANSFER TRACKS**

- MARINE SCIENCE
- MARINE BIOLOGY
- ENVIRONMENTAL SCIENCE
- OCEAN ENGINEERING

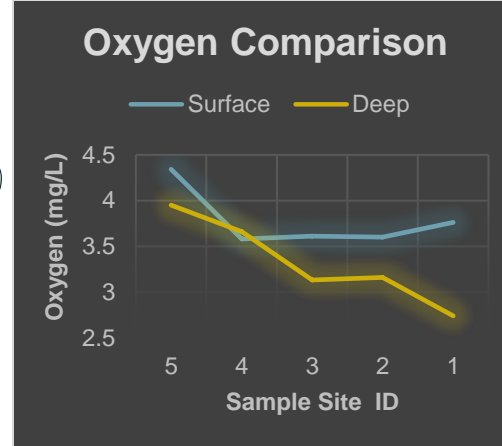
- ◉ **INTENDED TO DUMP THE EMPTY-BUCKET SYNDROME**

- INDEPENDENT RESEARCH



# EXPOSED TO FACILITATOR-LED ACTIVITIES

- **GRAPHING!!**
- **Sea grass transects**
- **Water quality methods/instrumentation**
- **Seining for vertebrates**



## EXPOSED TO FACILITATOR-LED ACTIVITIES

- ◉ Beach dune profile and sediment sieving
- ◉ Plankton tow/ID
- ◉ BOBs and Settling plates for invertebrates





# REQUIRED TO COMPLETE AN INDEPENDENT RESEARCH PROJECT

- ◎ POSE A SCIENTIFIC QUESTION
- ◎ IDENTIFY METHODS/INSTRUMENTATION
- ◎ CREATE A FINAL “PROFESSIONAL”  
PRESENTATION



# MY EXPERIENCES WITH UNDERGRADUATE RESEARCH...



--THIS IS AN ADVERTISEMENT--

**LOCATION: 304AB**

**9:45AM**

**JUMPING INTO THE DEEP-END  
OF THE OCEAN:**

*Adventures In  
Experiential Education Via  
Project-based Learning*