

FOSS WATERWAY SEAPORT INTERNSHIP

John P. Aldrich II

Interdisciplinary Arts and Sciences: Environmental Studies Summer 2011



TOUCH TANKS

TOUCH TANKS OFFER AN EDUCATION OPPORTUNITY TO INTERACT WITH NATURE IN A WAY THAT BOTH EDUCATES AN ENTERTAINS. MANY NORTHWEST FACILITIES UTILIZE TOUCH TANKS AS A EDUCATIONAL TOOL IN TEACHING K-12 STUDENTS ABOUT VARIOUS MARINE LIFE.

HIGHLINE COMMUNITY COLLEGE'S MAST CENTER AND OREGON STATE'S HATFIELD MARINE SCIENCE CENTER BOTH UTILIZE TOUCH TANKS AS PART OF THEIR EDUCATIONAL PROGRAMS.



HCC MAST
TOUCH TANK
WITH PUGET
SOUND SUN
STARS.

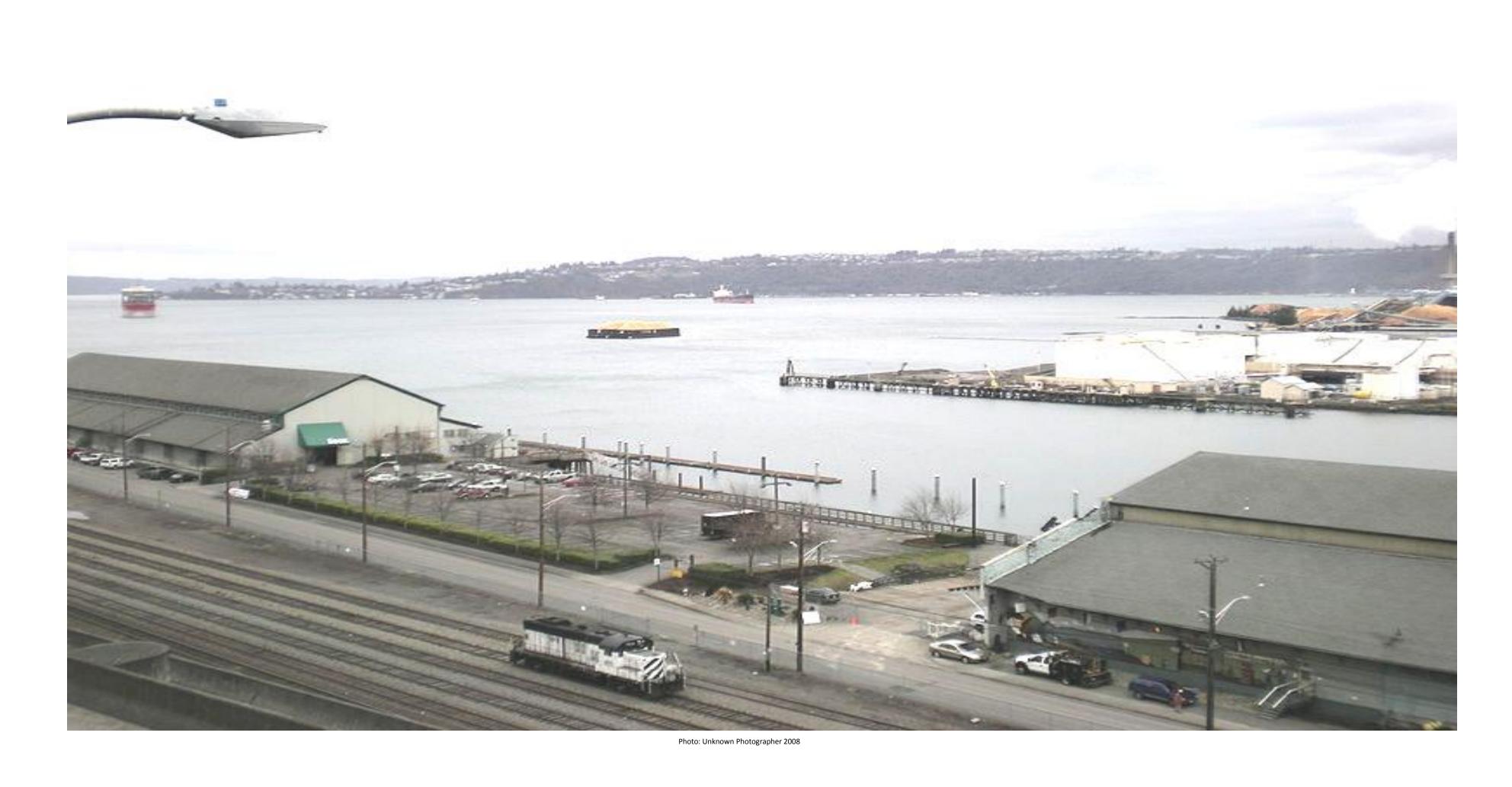
EXPERIENTIAL LEARNING

IN RESEARCH DONE BY VARIOUS GROUPS,
STUDENTS LEARN VIA MANY DIFFERENT
LEARNING STYLES. WHEN EDUCATION IS
COUPLED WITH REAL-TIME INTERACTION
WITH DATA, STUDENTS GAIN A SENSE OF
ACCOMPLISHMENT AND EXPERIENCE
RESULTS OF LONG TERM PERMANENT
KNOWLEDGE.

THIS TYPE OF TEACHING HAS SHOWN AN OUTCOME OF STUDENT'S LEARNING NEW OR ADDING TO EXISTING KNOWLEDGE TO RETAIN A HIGHER PERCENTAGE OF EDUCATION REGARDING THE SUBJECT PRESENTED. STUDENT TEST SCORES ROSE WITH THE INCORPORATION OF EXPERIENTIAL LEARNING IN 80% OF THE STUDIES COMPLETED.

ABSTRACT

CURRENTLY THE FOSS WATERWAY SEAPORT (FWS) IS WORKING TO CREATE A LOCAL WATER-BASED EDUCATION PLAN FOR YOUNGER STUDENTS INVOLVING AN INTERTIDAL TOUCH TANK. FWS INTENDS TO INCREASE PUBLIC KNOWLEDGE SURROUNDING POLLUTION AND HABITAT THROUGH THE USE OF THE TANK. UNDER THE SUPERVISION OF JAN ADAMS, I WILL BE CREATING AN EDUCATION PLAN FOR THE TANK. OUTREACH MATERIALS RELATED TO TOUCH TANK SPECIES WITH INFORMATION ON HABITAT PREFERENCE AND POLLUTION TOLERANCE LEVELS GARNERED THROUGH THE LITERATURE WILL BE CREATED. THROUGH EDUCATION OF STUDENTS AT FWS WE EXPECT THAT KNOWLEDGE WILL BE SPREAD VIA THE STUDENTS TO THE PUBLIC AT LARGE.



COMMENCEMENT BAY, WA VIEWED OVER FOSS WATERWAY SEAPORT.
SHOWS TACOMA'S MARINE HABITAT NEAR IT'S BUSY INDUSTRIAL PORT

EDUCATIONAL PLAN

Utilizing the information about the effects of experiential learning, an educational plan regarding Marine Ecology and inhabitants will be produced to educate students in a way that will both entertain and teach at the same time.

THE INTENDED OUTCOME OF THIS LESSON PLAN WILL BE FOR STUDENTS TO GAIN PERMANENT KNOWLEDGE OF THE INTENDED CURRICULUM AND TO ENGAGE THEM IN ACTIVITIES THAT CAN EXTEND BEYOND THE CLASSROOM SETTING. THIS EXTENSION CAN HAVE AN EFFECT ON THE COMMUNITY VIA INVOLVEMENT OF COMMUNITY MEMBERS AND THOSE WHO EXPERIENCED THE EDUCATIONAL PLATFORM.

INFORMATION CARDS

MARINE TOUCH TANK SPECIES INFORMATION
CARDS CAN INFORM THE STUDENTS ABOUT
VARIOUS INFORMATION. SOME OF THE
INFORMATION THAT CAN BE RELATED IS:

- SPECIES HABITAT REQUIREMENTS
- HABITAT EVOLUTION
- POLLUTION TOLERANCE AND RESPONSE
- SPECIES CHARACTERISTICS
- HABITAT RANGE
- AND A VARIETY OF OTHER INFORMATION



SIMILAR INFO BY PNW
BEACHCOMBER OF TIDE POOL
INHABITANTS

REFERENCES

Hatfield Marine Science Center: http://hmsc.oregonstate.edu/visitor/
Highline Community College's MaST Center: https://flightline.highline.edu/mast/visit.php
Foss Waterway Seaport: http://www.fosswaterwayseaport.org/
Seattle Aquarium: http://www.seattleaquarium.org/

1. Bethell S, Morgan K. Problem-based and experiential learning: Engaging students in an undergraduate physical education module. Journal of Hospitality Leisure Sport & Tourism Education 2011;10(1):128-134.

2. Boric E, Skugor A, Perkovic I. TEACHERS' ASSESSMENTS TOWARD OUT-OF-CLASSROOM RESEARCH TEACHING IN NATURAL AND SOCIAL SCIENCES. Odgojne Znanosti-Educational Sciences 2010;12(2):361-371.

3. Duman B. The Effects of Brain-Based Learning on the Academic Achievement of Students with Different Learning Styles. Kuram Ve Uygulamada Egitim Bilimleri 2010;10(4):2077-2103.

Fejes A, Andersson P. Recognising Prior Learning: Understanding the Relations Among Experience, Learning and Recognition from a Constructivist Perspective. Vocations and Learning 2009;2(1):37-55.
 Hodge P, Wright S, Barraket J, Scott M, Melville R, Richardson S. Revisiting 'how we learn' in academia: practice-based learning exchanges in three Australian universities. Studies in Higher Education 2011;36(2):167-183.
 Wescott A, Healy TC. The Memory Bridge Initiative on Service Learners. Educational Gerontology 2011;37(4):307-32

ACKNOWLEDGMENTS

I would like to extend a special thanks to my program advisor Jim Gawel, Ph.D. and UW Teachers Julie Masura, M.A. and Bonnie Becker, Ph.D. for their patience and providing me with an unrivaled education.

I would also like to thank Jan Adams and the Foss Waterway Seaport for their acceptance of me as an intern.

It would not be possible to experience this opportunity if it weren't for these people and their own personal inspirations to educate and share their knowledge.