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**Incorporating
Nature-Based
Learning
Experiences into
the Community
College
Curriculum**

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-Introduction to ecopsychology

- Nature-based experiences and learning in higher education

-Implementation at an urban community college

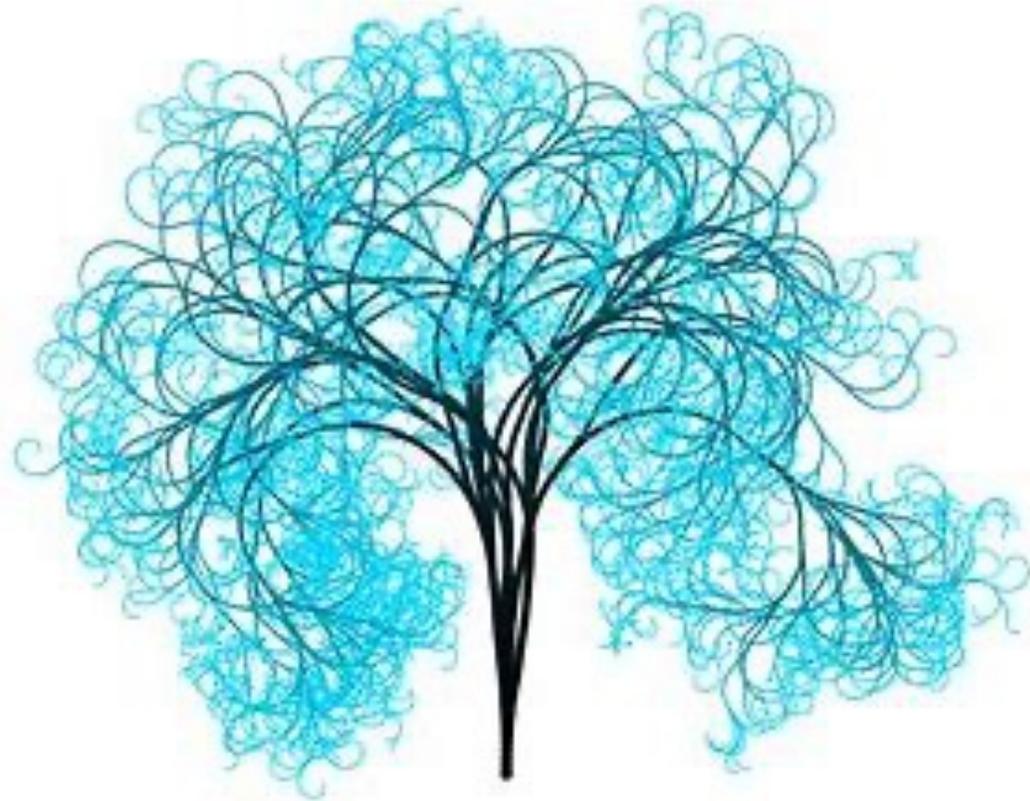
- Brainstorming discussion on implementing and assessing NBL in community colleges



Learning Outcomes

- Explain how nature-based experiences may help to support student engagement and success
- Recommend ways that nature-based learning experiences can be implemented across disciplines
- Discuss methods to assess nature-based learning experiences

Share an image or a few words that come to mind when you think of spending time in nature.



Ecopsychology

- Ecopsychology combines the disciplines of ecology and psychology to investigate the growing disconnect between humans and the natural world (Roszak, 2011).
- “It is only a tick of the clock that we have spent in highly urban settings, working in concrete buildings, driving in climate controlled cars, and living in relatively densely populated areas, shut off from nature” (Mayer et al., 2009).
- Ecotherapy “the ability of interaction with nature to enhance healing and growth” (Summers & Vivian, 2018).

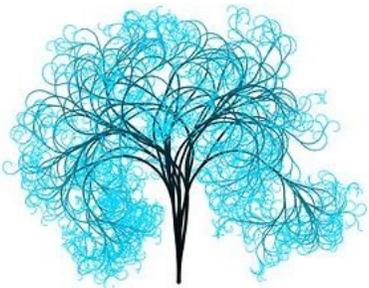


Benefits of Spending Time in Nature

- Cognitive benefits (increased attention, improved memory, alertness, better academic performance)
- Physical benefits (lower blood pressure, increase in Vitamin D, improved immunity, reduced inflammation)
- Improve mental health
- Increased well-being and mindfulness
- Increased happiness
- Reduce stress

Nature in Higher Education

- Campus and building design, domestic or international travel offerings, elective courses, residential programs, green spaces, field trips, skill development courses, and freshman orientation programs.
- Student programs for students focused on environmental education and outreach leadership, nature immersion, and some have created specific programs to address the complex mental health concerns of students such as depression and anxiety (eco-therapy)



Nature RX@Cornell



Nature Rx @Cornell is a dynamic and growing movement, represented by numerous individuals and units at the university, who have come together with a shared passion for the ways in which the natural beauty of our campus can positively impact every person's well-being.

- Access to local natural landscapes
- Information about nature-based affinity groups
- Creating activities on campus
- Sharing resources through social media
- Nature prescription program in which Cornell Health clinicians and mental health providers “prescribe” spending time outdoors in nature

Nature-Based Learning in Higher Education

- Suburban and rural areas where students often live on campus, it is more likely to see nature-based programs taking places at these institutions
- Although the benefits of nature-based experiences such as outdoor physical exercise (i.e., hiking or yoga), outdoor adventure experiences (i.e., white water rafting or wilderness camping), or outdoor meditative spaces such as healing gardens have been widely noted, urban community college students are rarely offered such programs as part of their college experience.
- Most community colleges do not offer residential housing for their students.
- Commuting students are often off campus during the evening or on weekends and they are less likely to “perceive their campuses as places to heal from whatever is plaguing them” (Rakow & Eells, 2019, p.69).

Nature-Based Learning in Higher Education



- Students may not even have access to green spaces on campus, if they have a campus at all, and have to rely on local parks to access the natural environment.
- A lack of time outside of class may also negatively affect urban community college students' ability to participate in nature-based experiences.
- Urban community colleges should seek to find ways of incorporating nature and nature-based experiences into the infrastructure of the college so that students are not required to travel or spend a significant amount of time outside the class to gain the benefits of these experiences.
- Matsumura (2016) states that, "students who face increased stress and anxiety when considering spending time away from studies, work, or family in nature, exposure to nature in their routines is likely to ease anxiety instead of increase it" (p.106).



Nature-Based Learning

Nature-based learning or learning through exposure to nature and nature-based activities, occurs in natural settings and where elements of nature have been brought into built environments, such as plants, animals, and water. It encompasses the acquisition of knowledge, skills, values, attitudes, and behaviors in realms including, but not limited to, academic achievement, personal development, and environmental stewardship. It includes learning about the natural world, but extends to engagement in any subject, skill or interest while in natural surroundings (Jordan & Chawla, 2019, p.2).



Nature-Based Learning

- increased well-being
- academic achievement
- pro-environmental behaviors and attitudes
- improved cognitive functioning
- increased attention and motivation
- improved social relationships
- decreases stress

Eco-Art Workshop Pilot Study (1)-Introducing Students to Human Services Related Fields (PLO)



- Select an item(s) from nature that you can relate to or has meaning to you
 - self-representation, signify a memory, or be a symbol for your future
- Create a piece of art based on this item(s)

Describe the item(s) you selected and why you selected it.

Describe your art piece.

What is the title?

What was the process of creating your art piece like for you?

How did nature influence this experience for you? Explain.

How could nature-based experiences or the idea of ecotherapy be incorporated into your life? Your work with clients or students?



Lifeless Tree

My collage is a tree without leaves and a bleeding golden eye, because I feel people want be to be perfect, but I have to get rid of the pain to look beautiful on the outside. The blue in the collage represents the rain and the ocean, which is somewhere I can feel at peace. The swirls and shells are because I love to dance and I love nature.

Animal Assisted Therapy Workshop

Pilot Study (1)-Introducing Students to Human Services Related Fields (PLO)



- NY Therapy Animals
- Learn about the field and populations served
- Role Play

Feedback

- Feedback found that responses fell into one of three themes (Kras, 2021)
- **(1) General satisfaction with experience**
 - reported benefits of participating in the activity such as having fun, meeting new people, or learning something new.
- **(2) Opportunity for self-expression**
 - theme demonstrated the participant's personal connection to reflection on the experience
- **(3) Awareness of stress-reduction**
 - demonstrate a participant feeling less stress or more calm or peaceful

Pilot Study (2)-Central Park Zoo

Ethnographies of Work is a first-year social science course that focuses on understanding workplace culture through ethnographic research.

Course Learning Outcome

Show enhanced understanding and practice of responsible and ethical work habits gleaned from ethnographic accounts of people at work in their research sites.

Course Learning Outcome

Demonstrate the ability to use diverse ethnographic methods (e.g., crafting pertinent research questions, conducting fieldwork with observations, an interview, and the recognition and analysis of artifacts) and concepts to research and compose a reflective, multifaceted analysis of the experience of individuals working in specific occupations.

Pilot Study (2)-Central Park Zoo

(1) What do you think it is like to have a career working with animals?

(2) What type of career options are out there for people who want to work with animals? and

(3) Is this a type of career you would like to pursue? Why or why not?

Develop a research question that would guide their research at the zoo.

-Two-part experience



Pilot Study (2)-Central Park Zoo

Knowledge Gained about "The World of Work"

"To be honest, when I saw how much the zookeepers love their jobs it made me realize how much I should be setting goals for myself."

Enjoyment of Interacting and Learning About Animals

"It was amazing, I love seeing animals,"

Having Fun During the Experience

"This experience was so much fun and very nostalgic. It reminded me how much my childhood was so fun and really engaging."

"For your future classes, I think more trips would be so fun for your students."



Demonstrate an understanding of clients and the problems they face (food deserts) (CLO)



Greenmarket Visit-Union Square

Greenmarket Visit-Union Square



-Nature-Based Learning
Examples

-Ideas for Incorporating
Nature-Based Learning in
Higher Education

-Ideas for Assessing Nature-
Based Learning



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