

**Nature Journaling as a Tool for Nature Connection in an Urban Middle School**

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## **Action Plan**

Initially I sought out answers to the following three research questions.

1. How does nature journaling affect urban middle schoolers' nature connection?
2. How does engaging in nature journaling in an urban landscaped environment provide opportunities for mindfulness?
3. What new insights might students gain through a nature journal practice?

The results of this study have uncovered that nature journaling has a positive affect on middle schoolers' nature connection, that nature journaling in an urban landscaped environment provides opportunities for mindfulness, and that as a result of this experience students have learned not only about the local plants and animals but the importance of slowing down, practicing mindfulness, and spending time outdoors. The findings here are particularly significant as we continue to navigate teaching and learning through a global pandemic. Children in my school community have spent an enormous amount of time indoors and often behind screens over the past two years as a way to distract themselves from the pandemic. Nature journaling has the potential to act as both an instructional tool for understanding the living environment, ecosystems and interactions amongst species while also providing opportunities for students to connect with nature and practice mindfulness.

The findings of this action research have led me to consider further research possibilities. One finding of particular interest is that the boys showed an increase in nature connection while the girls showed a decrease in nature connection through the INS scale however in their interviews the girls showed an increase in nature connection and the boys showed a decrease in nature connection. Why is this the case? My finding is particularly curious because Bakir-Demir et al. (2019) predicted and found that girls tended to have higher nature connection levels over

boys. Noting this difference between boys and girls in my class, I will continue to offer students choice in how they represent their thinking and feelings. When repeating this study I will add a section to the Inclusion of Nature in Self Scale where students will explain their numerical selections within the scale too.

Another finding of interest within the data was that nature journaling provided opportunities for nature connection. Diving deeper into both indicators of nature connection and mindfulness, there seems to be an overlap of stewardship that nature connection and mindfulness can both encourage and promote. Warkentin's (2011) college age students who nature journaled in Central Park for a semester experienced feelings of stewardship for the park as well as mindfulness through connection to the changing seasons. As we continue to assess students' responses to the pandemic, many school communities including my own have been affected by increased feelings of anger and depression. Nature journaling might prove beneficial especially for students who are struggling in this way especially because Bakir-Demir et al. (2019) found that higher levels of nature connection lead to better cognitive regulation. With this consideration a repeat of this action research within the particular subgroups of students experiencing anger or depression could further provide insight on the extent of the benefits of nature journaling and stewardship.

Another finding of interest is that students noted mindfulness as a result of their nature journaling, it would be interesting to track students' mindfulness after future nature journaling experiences to determine how long lasting these effects are. Given the set-up of my school schedule students reported to my classroom first period for attendance and then we arranged to be outdoors for the first two periods of the day. Students returned to the school building for the remaining six periods. Since the students reported feelings of connection and mindfulness it

would be very interesting to collect notes and observations from the other teachers who work with the class as well. The scheduling for outdoor excursions would also need to be tinkered with in order to continue this work. It was quite challenging to coordinate students missing classes, especially core classes like ELA. One solution would be to adjust the class schedules to provide students with double periods so that there is time to get outside, complete activities, and return to the building.

Lastly, this study has demonstrated that nature journaling leads to more opportunities of not just mindfulness but learning as well. My students expressed a genuine interest in furthering their knowledge of the plants and animals around them from being outside and taking the time to notice what was there. Payne and Wattchow (2008) who focused on both slow pedagogy and place based learning noted that their students were able to grasp a better understanding of the environment around them in a far more meaningful way. This way of teaching has the potential to strengthen student understanding. Therefore my final action step is to provide professional learning at my school by presenting this research as well as possibilities for teachers to incorporate nature journaling within their own classroom and curriculum.

The findings of this action research are that nature journaling has the potential to increase students' nature connection, mindfulness, and learning. There are four clear next steps rooted in the findings of this action research project. Since there was an interesting difference between male and female results around nature connection using two different data tools, one a survey, the other an open ended interview it is important to continue to provide students with a variety of ways to express their thinking and feelings. Additionally, when repeating the study students should have the opportunity to explain their choices within the INS scale. Repeating this study with a specific focus on students struggling with anger and depression would also help assess the

reaches of the mindfulness, nature connection, and stewardship elements of nature journaling. Third, asking teachers and students to monitor and track mindfulness after nature journaling could lead to more interesting results about how long the benefits of nature journaling last. Fourth and finally, because nature journaling has the potential to deepen student understanding, creating a professional learning workshop for staff members could help to encourage other educators within my school to incorporate nature journaling with their classes. Nature journaling is one small instructional strategy that has the potential to greatly benefit all types of learners, curriculums, and classrooms.

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