

Research on Learning Outdoors

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Every day in Simcoe County, 150 kindergarten students are exploring new territory, and in more ways than one. They're doing it while marching through muddy forests during outdoor lessons across the region north of Toronto. They're also breaking new ground in research, as subjects of a two-year study. The study is the first of its kind in Ontario and will investigate the impact of regular learning time outdoors in nature.

More than two-thirds of the 85 elementary schools in the Simcoe County District School Board have outdoor classrooms, the result of a recent push to green school grounds. Anecdotally, adults report benefits. Kids seem more engaged, curious, self-confident. So, they launched the study this year, in partnership with the Burlington-based <http://back2nature.ca> Back to Nature Network END and funded by \$89,000 from the TD Friends of the Environment Fund.

The project involves six classes in three schools. Half the classes spend 100 minutes or more outside every day and the others, acting as a control group, are outside much less. Next year, it doubles to six schools. Goals include monitoring each student's self-regulation — a skill that's key to learning — as well as teacher satisfaction and whether outdoor time at school impacts decisions to go outside at home.

The Star spoke with lead researcher Andrea Faber Taylor, a child environment and behavior researcher at the University of Illinois Urbana-Champaign. Here's an edited and condensed version of the conversation.

What is self-regulation?

Being able to stay on task and inhibit impulses. It's the ability to manage your own energy, emotions, behaviours and attention in ways that are socially acceptable and that promote good relationships and learning.

How might being in green space affect it?

It's based on the theory of attention restoration, and the idea that we have two types of attention. Directed attention requires effort. We use it to tune out distractions, stay focused on a task and direct our thoughts. But when it fatigues, we become impulsive and irritable and we make bad choices. We also have this other capacity called involuntary attention, which helps restore focus and allows room in our mind for reflective thinking. It doesn't require effort. Nature has a lot of characteristics that seem to draw on involuntary attention.

Like what?

Elements of soft fascination — running water, the breeze in the trees, fire, wildlife, waves, even indoors watching a fire in a fireplace — which are gently engaging and not fatiguing. And other characteristics like space, a feeling like there's more than meets the eye, that there's a little bit of mystery. There's a sense of being away from our everyday worries and activities.

How does that help self-regulation?

When direct attention fatigues, our capacity for self-regulation goes down. Stepping into a greener space means you can attend to what's around you. It gives you a mental break.

Why is this study important?

We need more evidence of how beneficial schoolyard green space can be because children spend a lot of time in school, including before and after. It's a critical setting for greening, even more important maybe than the home yard. This is their opportunity to interact with nature.

Why do we need to document something that seems obvious?

There's the question of how much is enough. There's a tendency to think more is always better, but maybe it's not. While we intuitively know green space is good, it doesn't get priority when push comes to shove in terms of time and money. Research is mounting that green space is not just an accessory. It's actually a necessity, an important component of healthy living. But policy-makers always look for quantitative evidence to make those decisions. If they can point to a study that says it's important then they'll make it a priority.

What about at home?

Parents would be more motivated if they could see evidence that being outdoors makes a measurable difference in children's healthy development. What I see as a parent is that we're all overscheduled, so even if you know nature is good for your kid, the reality is if it doesn't fit in the timetable it doesn't happen. We all have to be reminded that this is not just nostalgia. It's a real relationship, it's measurable and we need to work it into the schedule just like swim lessons. When you talk to other parents it's always 'my kid is doing this and this and this.' Nobody ever says, well my kids play in the backyard three days a week. But that's what we need.

How does your education in ornamental horticultural inform your research?

I think about not only whether a space is green, but also how children experience it. Is it comfortable? Does it afford the kinds of activities they need to engage in for healthy development such as running and climbing, pretend play, manipulating materials and constructive play such as digging and building? And does it provide opportunities for children to experience solitude and separation from their peers for a little while? That's really important for attention restoration, just that quiet experience of the space.

So in other words, letting kids be kids is key?

Yes. I love that (Maria Montessori) quote "play is the work of children."

What's your advice to parents about prioritizing outdoor time?

Just try it. No known side effects, right? It doesn't cost anything. Every child is unique in how they experience nature, so figure out what works. Maybe one child biking through a park is the way to do it and letting another child play in a sandbox or climb a tree is most beneficial. It has to be child-driven. It's not necessarily a one-size fits all.