



TDSB/OISE Action Research Team Research Summary

Introducing the Teacher-Researcher, Students & School:

I am Hongliang Hu, a Designated Early Childhood Educator conducting action research in my Kindergarten classroom at Essex Jr. and Sr. Public School during the 2024-2025 school year. My class consists of 28 children, including 4 students diagnosed with Autism and other special needs. The group is a mix of Junior and Senior Kindergarten children, aged 4 and 5 years. This research aims to explore and enhance learning experiences tailored to the diverse needs of my students within this inclusive kindergarten classroom setting.

Research Question:

How can Social-Emotional Learning be integrated into climate change education for Kindergarten students?

Curricular Implementation:

In my action research, I integrated Social-Emotional Learning (SEL) into climate change education for Kindergarten students through a multi-faceted, inquiry-based curriculum. We began with read-alouds such as The Earth Book, Coco's Fire, and The Sunburnt Polar Bear to introduce climate concepts and evoke empathy for the Earth and its animals. Students explored feelings related to environmental changes, especially focusing on the polar bear's shrinking habitat, using an emotions wheel to express their responses.

Hands-on arts activities included creating representations of the polar bear's icy and melting habitats, allowing students to connect emotionally and creatively with the topic. Building on this, the class developed an Environmental Kindness Action Plan and engaged in practical climate actions such as reusing dried-out markers, recycling and reusing GOOS paper, and participating in vermicomposting and planting black beans. Watercolor spray art was also incorporated as a creative way to express their learning and feelings about climate change. This holistic approach fostered both awareness and social-emotional skills, empowering students to understand and act on environmental issues in age-appropriate, meaningful ways.

Photo Documentation:



Data Collection Strategies:

Based on your curriculum implementation, my data collection strategies include:

Observations: Documenting students' engagement, emotional responses, and interactions during read-alouds, arts activities, and inquiry-based learning sessions about climate change and the polar bear's habitat.

Student Work Samples: Collecting artworks (e.g., polar bear habitats, emotions wheel responses, watercolor spray art) to analyze how students express their understanding and feelings about climate change.

Anecdotal Records: Recording conversations and reflections during discussions about the Earth's feelings, environmental kindness, and climate action plans to capture students' social-emotional learning and climate awareness.

Action Plan Participation: Tracking involvement and contributions in the Environmental Kindness Action Plan and related activities such as recycling, reusing materials, vermicomposting, and planting.

Self-Reports and Reflections: Using simple verbal or visual tools (like the emotions wheel) for students to express their feelings and thoughts about climate change and the actions they take.

These strategies together provide a rich, qualitative picture of how SEL and climate change concepts are integrated and internalized by Kindergarten students.

Insights from this Action Research Study

This action research highlights how integrating Social-Emotional Learning (SEL) into climate change education can deeply engage Kindergarten students both cognitively and emotionally. Through read-alouds like *The Earth Book* and *The Sunburnt Polar Bear*, children developed empathy for the Earth and its animals, particularly understanding the polar bear's changing habitat. The use of the emotions wheel helped students articulate their feelings, fostering emotional literacy linked to real-world environmental issues.

Hands-on arts activities and inquiry-based learning allowed students to creatively explore climate concepts, making abstract ideas tangible and personally meaningful. The Environmental Kindness

Action Plan empowered students to take concrete steps—such as recycling and planting—demonstrating how SEL supports developing agency and responsibility even at a young age.

Data collection through observations, student artwork, and reflections revealed growing awareness and emotional connection to climate change, showing that early education can effectively blend environmental science with SEL. This approach nurtures compassionate, informed learners who are motivated to care for their environment, suggesting that similar integrated curricula could benefit early childhood education broadly.

Other Notes:

For my reflective practice, consider these notes:

- Integrating SEL with climate change education created a supportive learning environment where students felt safe to express complex emotions about environmental issues, enhancing both empathy and critical thinking.
- The combination of read-alouds, arts, and inquiry-based activities effectively engaged diverse learners, including those with special needs, by addressing multiple learning styles and developmental levels within a mixed Junior and Senior Kindergarten class.
- Using tools like the emotions wheel helped bridge cognitive understanding and emotional awareness, reinforcing children’s ability to recognize and manage feelings connected to real-world challenges.
- The Environmental Kindness Action Plan and hands-on climate actions fostered student agency, showing that even young learners can meaningfully contribute to environmental stewardship when given appropriate opportunities.
- Data collection through observations, student work, and reflective discussions provided valuable insights into how students internalize and respond to integrated SEL and climate learning, guiding ongoing curriculum adjustments.
- Challenges included balancing curriculum demands with individualized support, especially for children with Autism and special needs, highlighting the importance of flexibility and responsiveness in action research.

Overall, this research reinforced the value of a holistic, child-centered approach that connects social-emotional growth with meaningful content, setting a strong foundation for lifelong environmental awareness and empathy.

These reflections can inform future cycles of my action research and curriculum development.

Info about the TDSB/OISE Action Research Team can be found on the [TDSB](#) and [OISE](#) websites