Communities of the Northern Forest face many challenges in the years ahead. Economic decline, job loss, youth emigration, changes in the global economy, and climate change are just a few. Across the world, many communities look to education to equip the next generation of leaders to address these problems in thoughtful and holistic (whole systems) ways. However, there has been growing concern that mainstream education has failed to address many of the underlying patterns that connect our most pressing problems. The linear and mechanistic thinking that has given rise to the problems of education has led some individuals to turn to whole systems thinking and ecological design for a more holistic approach to educational design. Whole systems thinking reminds us that people, communities, and the environment are linked, and educators in ecological design often use the local community and ecosystems as “classrooms.”

NSRC researchers studied innovative and highly regarded programs, organizations, and visionary individuals that had similar aspirations to foster a sustainable future through education and were guided by whole systems thinking or ecological design. The research identified key concepts, principles, and practices that can guide design of educational systems in support of a sustainable future.

Researchers then applied these concepts to educational design challenges at the University of Vermont (UVM) and used them to create new educational programs and courses, including refinements to programming at UVM’s GreenHouse Residential Learning Community and development of a capstone diversity course called Power & Privilege in Life and Work and a graduate-level course called Designing Learning Environments for a Sustainable Future.