

Please provide an abstract summarizing the main findings of your Spencer funded project in 250 words or fewer. As we likely will post the project abstract on the Spencer Foundation website, this should be written for a broad audience.

This project explored the potential of place-based environmental stewardship education for developing the civic learning, commitments, and actions of students. Mixed-methods (surveys and interviews) were used with students from mid-elementary through high-school. The sample included students from urban, rural, and suburban communities, with a large percentage from ethnic minority and low-income families. Through a model of school-community partnerships, students identified local environmental issues impacting their communities, collected and analyzed data, took actions to address the problems, and presented their results in public venues with adults and peers and in interactions with governmental and non-governmental organizations. After participating in these learning-action efforts, students from diverse backgrounds and all age groups expressed an awareness of themselves as civic actors who, with others, could address public problems and effect change that benefited their communities.

By exploring the civic potential of environmental learning, the project expanded the scope of the civic domain and introduced new arenas for research and practice that have not typically been central to civic education. In particular, because the model guiding the project focuses on the local environmental commons and emphasizes students' capacities for action, students develop an identification with and attachment to their local community; an awareness of their interdependence with other people and species; and of their capacities for taking action on behalf of the local community. By focusing on the environmental commons that belong to everyone, students understand themselves as stakeholders whose civic actions affect the quality of life for others – today and in the future.

Does your study yield unexpected findings or provide original evidence related to highly contested questions?

Findings of this exploratory study contest the inevitability of a “tragedy of the commons”. Instead, they resonate with the work of Elinor Ostrom, the political economist and Nobel Prize winner, who demonstrated that people will engage in collective decision making to sustain resources that are their commons. Although exploratory, this project provided insights into the developmental foundations that would enable and motivate young people, including those from low-income communities, to take collective action to preserve the commons. The study emphasizes the importance of students' agency and action in applying their knowledge to solving public problems.

Which of your findings are best supported and yield the greatest explanatory power?

Qualitative data revealed civic learning by students of all age levels and from all social class and racial/ethnic backgrounds. Regardless of the specific content or context of the place-based stewardship effort, students were able to articulate similar civic ideals. Emergent themes included students' sense of agency, community pride and connection, and self concepts as civic exemplars who can teach and

influence others in their community. Evidence supports the theory that learning-action in the environmental domain influences students' civic commitments.

What new directions or new questions, if any, does your research suggest for future research?

This study points to the potential for place-based education focused on environmental stewardship efforts to influence students' civic agency. Given the civic implications of issues such as climate change, this study emphasizes the importance of the civic/science nexus as a springboard for civic education to prepare students to apply their learning to public problem solving and to the preservation of common pool resources. Further research is needed to determine the pedagogical practices in place-based stewardship education that effect change in the civic awareness, capacities, identities, and actions of students.

How might your findings fit into a broader developmental framework for civic learning and civic action that includes individuals younger and/or older than your research population?

This study focused on a broad age range including students from mid-elementary through high school. Qualitative data revealed developmental differences in how students conceived of and were able to articulate concepts related to the commons. Older students had a deeper understanding of themselves as civic actors and were better able to give voice to that identity. Nonetheless, themes that emerged in interviews with the younger students suggest that projects that engage even elementary students in learning-action to preserve the local environment can influence their understanding of the environmental commons as something in which they have a stake.

We see the development of more explicit and coherent theoretical frameworks as a basis for progress in research in the civic arena. Which bodies of theory does your work support, challenge, or develop, and how?

The work supports the principles of place-based education as a civic education model, particularly the value of focusing on local community issues and engaging in learning-action in the local community for students' civic identity formation. This framework challenges typical models of environmental education that focus on pristine nature, ignoring issues of importance to urban and ethnic minority groups. Supporting Ostrom's work on the factors that facilitate a commitment to preservation of common pool resources, student learning upholds the common good as a factor in public decision making and the need for engaging young people as agents of community change.

What does your research reveal about social inequality in youths' civic learning and civic action and about attempts to increase equality in this area?

First, environmental activism has been criticized for framing environmental issues from the standpoint of white, middle-class actors. This study shows that, when ethnic minority and low-income students see the impact of environmental issues on their community, they take action to address those issues. Second, in low performing schools, typically in poorer neighborhoods, standardized testing mandates and lean budgets mean that these students rarely have opportunities to engage in place-based stewardship education. Teachers in the low-income communities in our study were committed to this kind of education that enabled their students to identify and act on public problems.

What does your research suggest about the quality of civic learning and civic action (i.e., its grounding in deliberation and depth of understanding)?

The educational model we studied encourages youth to reflect together about what matters to their communities and to decide on actions to address these issues. Results suggest that participation in civic life in local communities is critical for students' learning. Providing opportunities for students to participate in public forums, influence others in their communities and have their voices heard by people in positions of power is positively associated with students' motivation to recruit others into civic action. Active participation of young people -- working with fellow community members to address issues of public concern -- is the key to a quality experience.

If your project included data collection or the development of new measures, how will the data or measures be made available to other researchers?

The study explored new territory in terms of students' concepts of the commons. Interview data suggest that concepts such as interdependence, generativity, and collective action are core aspects in students' understanding of the commons. Our plans are to build on these insights and (pending funding) to develop new measures that would tap various dimensions of a commitment to the commons. During the project time-frame, results were shared via professional development meetings with teachers and staff of community based organizations. Results have been shared at two professional meetings and we plan to share the results at regional conferences on place-based education.

Based on your research, what specific recommendations could be made for educational policy and/or practice?

Bridging environmental science with civic education is a relatively unexplored arena for students' civic development. This study brings to light the untapped potential of environmental/stewardship focused place-based education for civic action and learning. Based on this exploratory study, we would

recommend increases in educational practice linking environmental and other science with civic learning and action. In addition, to motivate students' learning, educational policy should emphasize students' application of that learning to collective action on community issues as well as students' presentations of their insights to public officials and fellow citizens.

Study Publications

Southeast Michigan Stewardship Coalition website (pending) www.semiscoalition.org

Flanagan, C., & Gally, E. (in press). Adolescents' theories of the 'commons'. In J. Benson, (ed.), *Advances in Child Development and Behavior, Vol. 46*. Oxfordshire, UK: Elsevier.

Gally, E., Marckini-Polk, L., Schroeder, B., & Flanagan, C. (under review). Place-based rural stewardship education: Engendering and identification with the local commons. *Peabody Journal of Education*.

Conference Papers and Presentations

Ozer, E., Flanagan, C. and Zimmerman, M. (2014, March). *Youth Participatory Action Research and Empowerment Approaches Opportunities and Challenges for Bringing Processes to Scale* in Martinez, M. (Moderator) Symposium conducted at the biennial meeting of the Society for Research on Adolescence

Flanagan, C., Manzira, F., and Gally, E., (2013, November) *Nurturing a Sense of the Commons through Ecojustice, Place-based Education*. Forum discussion conducted at the Great Lakes Place-based Education conference.

Martusewicz, R., Lowenstein, E., and Gally, E. (2013, October) *Countering authoritarian education through EcoJustice: Powerful place based education*. Presentation at the Eastern Michigan University Social Foundations of Education Conference.

Communication of Results

Southeast Michigan Stewardship Coalition professional development sessions
September 2013
March 2014
Summer Institute, June 2014

Great Lakes Place-based Education conference
2013
2014 (pending)

EcoJustice and Activism conference
March, 2014

Research Personnel

Constance Flanagan: Faculty member, funding received.

Erin Galloway: Graduate student, research associate, funding received.

Ethan Lowenstein: Faculty member, funding received.

Haley Serebin: Undergraduate student, no funding received.

Lisa Marckini-Polk: Independent researcher, no funding received.

Brandon Schroeder: Education practitioner, no funding received.