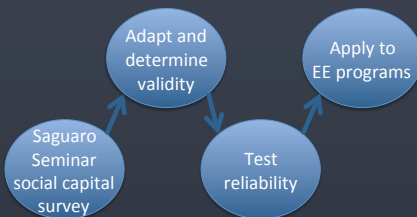


Abstract

Social capital is an indicator of positive youth development, community well-being and social systems resilience, and a potential outcome of environmental education (EE). We developed and tested for reliability a survey instrument for measuring social capital among middle and high-school students.



The widely used Saguaro Seminar social capital survey was used to inform our youth survey. The results of the testing suggest that constructs measured by Likert-scales are reliable for use with a youth audience. We used the survey to evaluate the impact of urban EE programs on social capital among youth participants. Results indicate that two social capital constructs, informal socializing and diversity of friendships, were positively impacted by the EE programs.

Research Framework

Environmental educators interested in measuring program outcomes on community and youth well-being have looked at social capital from a qualitative perspective. Social capital constructs include (Putnam, 1995):

- Social trust
- Informal socializing
- Diversity of friendships
- Associational involvement
- Civic leadership
- Giving and volunteering, and
- Political participation.

Development of an Instrument to Measure Social Capital in Youth



marianne krasny
leigh kalbacker
alex kudryatsev
richard c stedman

| | Strongly Disagree | Somewhat Disagree | Neutral | Somewhat Agree | Strongly Agree |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 54. In general, I can trust most people | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 55. I do NOT trust people in my community | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 56. I trust people I go to school with | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 57. I trust people I hang out with | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 58. I do NOT trust the police in my community | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 59. In general, I trust adults in my community | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| How often do you: | Never | Sometimes | Often | Very Often |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| 60. Have friends over to your home? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 61. Attend a celebration, parade, or art event in your community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 62. Attend a local sports event in your community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 63. Visit relatives in-person or have them come visit you? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 64. Hang out with friends at a park, shopping mall, community center, or other public place? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 65. Have informal conversations with adults in your community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Adapt Survey and Determine Validity

- **Face validity.** Five constructs from the original Saguaro survey were selected as being relevant for youth audiences engaged in EE programs: (1) social trust, (2) informal socializing, (3) diversity of friendships, (4) associational involvement, and (5) civic leadership. Questions were reworded and discussed with experts in the field and environmental educators.
- **Member check.** The preliminary survey was administered and discussed in two focus groups of high-school students in the Bronx and one group of middle-school students in Ithaca NY.

- **Content validity.** Constructs are based on the social capital literature (Saguaro Seminar, 2000; 2006).

Determine Reliability

- We used a Zoomerang online survey with 210 middle-school students (n=210, ♂ 52%, ♀ 48%) across the U.S. to determine reliability of two Likert scales: social trust (alpha=0.64) and informal socializing (alpha=0.74).
- Three constructs were administered as yes/no questions.

Apply to EE Programs

- **TREATMENT.** Three scales were applied pre/post-program in four 5-6 week urban EE programs in the Bronx in summer 2010 (n=64, return rate 67%).
- **CONTROL.** The same survey was used in two summer youth employment programs of similar length and demographics (n=23, return rate 60%).
- There was no difference between treatment and control pre-program in social trust, informal socializing, diversity of friendships, gender (♂ 56%, ♀ 44%) and age (16, SD=1.8).
- Informal socializing and diversity of friendships increased significantly in short-term urban EE but not in control programs in the Bronx.

| | Social Trust | | |
|-----------|----------------------|----------------------|----------------------|
| | Pre | Post | Paired t-test |
| Treatment | Mean=3.32 SD=0.72 | Mean=3.29 SD=0.59 | t(62)=0.40 p=0.69 |
| Control | Mean=3.06 SD=0.70 | Mean=2.96 SD=0.77 | t(23)=0.94 p=0.36 |

| | Informal Socializing | | |
|-----------|----------------------|----------------------|------------------------|
| | Pre | Post | Paired t-test |
| Treatment | Mean=3.07 SD=0.69 | Mean=3.21 SD=0.66 | t(61)=2.14 p=0.037* |
| Control | Mean=2.98 SD=0.81 | Mean=3.11 SD=0.63 | t(23)=1.04 p=0.31 |

| | Diversity of Friendships | | |
|-----------|--------------------------|----------------------|-------------------------|
| | Pre | Post | Paired t-test |
| Treatment | Mean=4.08 SD=0.66 | Mean=4.28 SD=0.59 | t(60)=2.89 p=0.005** |
| Control | Mean=3.77 SD=0.62 | Mean=3.79 SD=0.64 | t(23)=0.26 p=0.80 |

- We currently are analyzing results for the associational involvement and civic leadership constructs.

Discussion and Conclusion

This is the first quantitative study that we are aware of to evaluate the impact of EE programs on social capital in youth. The survey has been tested and can be applied by other EE programs.

In the future, we will conduct research to understand why the EE students showed increases in two social capital constructs whereas control group youth did not exhibit significant changes in social capital.

