

Collaboratively Developing and Assessing Garden-based Environmental Education in Seattle's
International District

Center for Environmental Justice and Sustainability Faculty Fellowship (2013-14):

Final Project Report

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PROJECT STATUS

This report constitutes an update of the research project's status that builds on my midyear report submitted in March 2014. In sum, I am delighted to report that the research conducted under the auspices of the CEJS Faculty Fellowship has not only yielded data of interest to the academic community and general public, but it has also made meaningful and valued contributions to the educational efforts of my community partner and research collaborator, InterIm Community Development Association. As I explain below, while the latter outcome is perhaps more difficult to quantify, it is likely to have the most enduring impact.

Following a nearly year-long process of research, observation and consultation with the three educators involved in InterIm's garden-based learning program, the survey instrument that we collaboratively developed was administered to three different groups of student learners in the spring and summer of 2014. After the surveys were gathered and analyzed by InterIm's teachers, in late August we met to discuss the survey results, the educators' personal assessments of the program impacts, and the changes that ought to be made to the assessment tool for future iterations of InterIm's garden-based learning. It should be noted that this is the first time that InterIm has attempted to systematically assess learning/behavioral outcomes for their program (despite an early interest in doing so), hence it is perhaps unsurprising that our discussions and analysis pinpointed several aspects of the assessment process that will need to be adjusted in the future. Briefly, these adjustments involve both the structure and content of the surveys as well as the way in which they are administered.

In November, I and my principal InterIm collaborator, Rachel Duthler, will present our research results and the research process at a public forum at Seattle University. This represents the first concrete research outcome of the fellowship. Our research outcomes will also be incorporated into the content of a museum exhibit on InterIm's Danny Woo Garden and sustainability in Seattle's International District that will be held at the Wing Luke Museum of the Asian Pacific American Experience in spring 2016; this is the second concrete research outcome of the fellowship. Although the data that we generated during this initial project are not yet sufficient

for a substantive scholarly journal article, that is indeed the ultimate goal as we continue our process of revising and testing different assessment models. After another round of testing this coming (2014-15) academic year, I anticipate that we will have enough information to begin writing. However, in the meantime, the initial attempt at assessment that was catalyzed by this fellowship project has had a major impact on InterIm's educational programming. In particular, it focused staff on clearly articulating their educational objectives, generated a variety of novel methods for measuring whether those objectives were achieved, and provided some initial feedback on the impact of garden-based learning on the youth they serve. Although InterIm and its funders have long sought measures of student impact, it is fair to say that it took this research project to finally make that wish a reality. While our research revealed the need for adjustments to the content and implementation of student assessment, the assessment process itself now has the foundation and momentum it needs to continue on a yearly, cyclical basis. As this evaluation process is continually refined and the data it yields become more comprehensive, rigorous and convincing, InterIm will not only have an increasingly robust resource for enhancing their programming's effectiveness, they will also have an increasingly persuasive means of securing funding for their work. As noted earlier, this may be the most concrete, enduring and valued legacy of my fellowship research.

In order to realize the specific research outcomes outlined above, I will remain closely engaged in this assessment project during the coming year (and likely thereafter as well). It is now clear that a proper assessment of program effectiveness requires a longitudinal study exceeding my one-year fellowship term, and an ongoing cycle of testing, analysis and refinement. In order to enhance my individual contribution to this ongoing research process, I have enrolled in a distance-learning course offered by Cornell University and the North American Association of Environmental Education entitled "Measuring Environmental Education Outcomes." The core assignment of the class is to design a research instrument for program assessment, and I intend to use my fellowship research and assessment experience with InterIm as the basis for designing an evaluation tool that we can use for the coming spring and summer sessions of InterIm's garden-based learning outreach.

In closing, I would like to once again express my sincere gratitude for the fellowship support that I have received this past year. The CEJS fellowship enabled me to dig deeply into the latest research on program evaluation and use it to inform a real-world assessment exercise that was highly valued by my community partner. As my research in both the U.S. and China increasingly focuses on environmental education program assessment, I especially appreciate this opportunity to refine my knowledge and practice in this important area of inquiry.