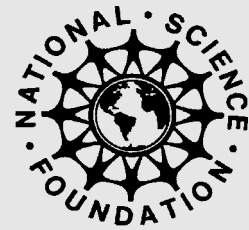


**Citizen Science
Toolkit Conference**

June 20 - 23, 2007

provocations/questions:
citizen science project design

Martin Storksdieck
Director of Project Development
Institute for Learning Innovation



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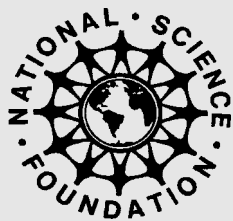
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This presentation took place at the Citizen Science Toolkit Conference at the Cornell Lab of Ornithology in Ithaca, New York on June 20-23, 2007.

Note that this document did not originate as a formal paper. Rather, it reflects the more informal, idiosyncratic nature of a delivery prepared specifically for this live event.

Documentation of the conference is meant to serve as a resource for those who attended and for others in the field. It does not necessarily reflect the views of the Cornell Lab of Ornithology or individual symposium participants.



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The following recap poses provocations or questions in response to the four presentations delivered as part of the session titled "Citizen Science Project Design" on day one of the Citizen Science Toolkit Conference, which focused on the importance of project evaluation.

For complete documentation of conference proceedings and to learn more about citizen science and the Citizen Science Toolkit, or to join the ongoing citizen science community, go to:

<http://www.citizenscience.org>

Provocations/Questions: Citizen Science Project Design

Martin Storksdieck,
Director of
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Summary of Key Elements

You need to keep all of this criteria for success described in the previous talks in mind to be successful? That is quite a challenge. That was my first impression. What that conveys to me is that designing effective citizen science projects is a nontrivial matter. If anything, we are learning here just how hard it is to do this well. I think the first stage is to simply do it; the “well” comes later, and that is where evaluation kicks in, which you can use to your advantage, as has been said many times.

Let me first summarize what I heard in what were possibly four different terms or four ways of thinking about citizen science projects. What I heard in the last four presentations was basically: make sure you know who you are; and we heard there are models out there that are very different. Which model your project represents is something you need to determine for yourself, but it seems that when you say what it is you want to achieve—your objectives—that may already have something to do with who you are. So you need to go back and ask yourselves: What determines who I am? Why am I here? Why am I doing this? Who do I need to involve—those whom I think I am doing my project for or with—and bring to the table in deciding who I am? I think that is a feedback mechanism right there that involves something that hasn’t been mentioned here so far, which is needs assessment and front-end evaluation.

Once you have figured out who you are and what you want to achieve with your project, you want to make sure that you grow and adapt and are flexible, and you want to make sure you change as much as is needed to be successful. The other thing I have heard here is that you want to not do it alone. Everybody talked about how success comes from collaboration and how you want to share. That kind of summarizes what I heard, and now let me go into a little more detail.

Kirsten Ellenbogen started with what I thought was a wonderful introduction. She was focusing on something that, as evaluators coming from a learning perspective, we are very concerned about, which is: What do people personally take away from their experience? What, in other words, happens in their head as a result of their involvement? Not necessarily the data quality, which we didn’t have

To finish up this session of presentations I would like to introduce Martin Storksdieck from the Institute for Learning Innovations. Every time I talk to him I say, “I wish I’d thought of that,” so I thought of him as the perfect person to try to synthesize what we’ve heard and bring us back to thinking once again about how we measure success. - Rick Bonney, Director of Program Development and Evaluation, Cornell Lab of Ornithology

“ What I heard in the last four presentations was basically: make sure you know who you are... ”

“ Good design and successful design has a lot to do with integrating evaluation into the process of your work. It’s not something you do and stop when it’s a success, or something that you only do in the beginning to assure you’re on the right path, it’s something that you do all the time, talking to people and getting feedback. ”

That is a great point, partnership, and I think I said this morning briefly that one of the reasons that we’re here is to consolidate, amalgamate our wisdom, such as it is, about citizen science for the world to glean. But it may be just as important, maybe more important to form a network so that we do know each other as partners and can collaborate in the future and work toward and embody our strengths. - Rick Bonney, Director of Program Development and Evaluation, Cornell Lab of Ornithology

to touch on because others here with much experience in that area were talking about data quality in terms of their projects.

What we saw was just how broad the potential is, how many different objectives are out there for citizen science projects that have to do with who you are. I think keeping that in mind and being true to yourself, whatever “your” means, is an important aspect. We could walk away from this conference saying, “That was so cool what somebody else just told me, and I wish I had done that,” but I think it’s important to realize that you are doing something for your own purposes.

There was also the whole notion of having very broad objectives when you think about what the objectives might be, and narrowing later on through processes that Kirsten was describing as being circular from the perspective of an evaluator and researcher. Think about that not as an afterthought. Good design and successful design has a lot to do with integrating evaluation into the process of your work. It’s not something you do and stop when it’s a success, or something that you only do in the beginning to assure you’re on the right path, it’s something that you do all the time, talking to people and getting feedback. Everybody mentioned that in one way or another: in formal and informal ways, they get feedback.

Questions for Discussion

I was not only charged to summarize, I was also charged to ask provocative questions. I think a provocative question here is, how on earth do we do all of this and do it well? One of the things I find interesting is that from the talks I just heard, what I would take away is: I have to be an expert in all of this? I need to keep in mind learning theory, activity theory, social theory of action, and so on and so forth? There is a lot in there, and you may feel very quickly overwhelmed, or at least I do. I get the feeling: Don’t try this at home!

I think that is the challenge that I see in this. The challenging question is: Where are you competent? What do you do well and what don’t you do well? I don’t mean to say that you’re not all fabulous. The idea is to identify where you need to partner, and I’m not even sure you’ll find the right partner. But what I take away from this is really the hard question: Where do you excel and where do you see that you have deficiencies—or not deficiencies, but where do you see that you need to bring others in?

That is basically the summary for this session, which I found amazing, and I hope you all found it valuable too. We are talking in our evaluation breakout sessions about how to come up with ways of thinking about what objectives might be and how they are linked to

the design. And then, of course, how do you measure that? What we haven't touched on is just how difficult that can be, particularly when you do it on the side rather than embed it into your process.

It seems to me that there is this whole idea of assessing objectives, having that evolving over the time of your project, and documenting that in some way, not only for the purpose of knowing you did well, which is important, but because citizen science means that there are lots of people and stakeholders involved, and we want to tell them that what they did, what everybody did, was successful. Doing this and communicating what your project is about and what it accomplished is important.

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The challenging question is: Where are you competent? What do you do well and what don't you do well?...Where do you excel...where do you see that you need to bring others in?

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