



## Reflection Tool #3: Volunteer training and support

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### Purpose

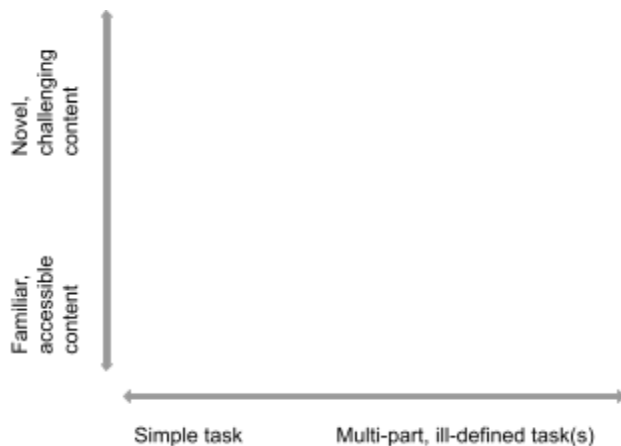
How does a person move from being curious about citizen science to being a participant? What skills, knowledge, or cultural practices do they need to master, or at least try, in order to begin? What platform infrastructure, resources, or opportunities can projects provide in order to support diverse participants' continued engagement and improvement at the task a project invites them to do?

This month we will explore these questions through presentations and conversation. We offer this reflection tool as an aid to project leaders in bringing these ideas home to their projects.

We will not ask you to share your responses to the following prompts. If you work with a team on your project we encourage you to share it among yourselves. We hope that it inspires questions or ideas you'd like to share in our March 18 workshop.

### A. Fit to Purpose

- 1. How would you characterize the difficulty and complexity of the task you are inviting citizen scientists to do in your project? Does what you invite them to do change through time?**





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### 2. How do you or might you inquire about and then make use of your volunteers' existing familiarity with content or with relevant tasks (e.g., the knowledge and skills they bring with them into your project)? How do you learn what they know or what skills they have?

Recognizing and leveraging a volunteer's prior knowledge can help them feel like they belong, like they have something to contribute, and therefore help them engage. It can also help you direct them to specific training or support you offer, or tap into their skills right away.

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### 3. What training or support do you currently offer? What's your assessment of how well those elements work for your project's needs and your volunteers' needs?

You may want to think broadly here about what constitutes training or success. There may be informal, effective practices in place through talk or chat forums. If you don't have evidence of success (or lack thereof!), where might you find some or how could you collect some?

Training or support tool or strategy	Evidence of success

## B. The Focus of Trainings

There are multiple aspects of citizen science participation that might be supported through training or project infrastructure and tools. Citizen scientists, for example, might want to:

- Get better at the **practices** required in a given citizen science project; develop skills or speed
- Develop their **knowledge** in the subject area of a project
- Become more comfortable and fluent in the **culture** of a citizen science project, including understanding the ways that the participants - scientists and volunteers - in a citizen science project interact with one another; develop their own sense of belonging

There are many reasons to provide opportunities for learning in a citizen science project. Certainly, your volunteers need to know how to do the task that you've invited them to do. Getting them to learn those skills, however, may require that they feel like your project welcomes them or is for people like them. And they may

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only stick around if they are challenged and improving. Training or other learning opportunities may be as much about building loyalty and retaining great volunteers as it is about data quality. And training takes time - yours to plan and participants' to engage with. Finding the right levels and combinations of training and support opportunities can require some learning from your volunteers.

**4. In what ways do your current or planned trainings, broadly speaking, address volunteers' needs related to the following aspect of citizen science participation?:**

- **Mastering practices (having skill at the task to meet the quality standards required)**
- **Gaining knowledge (being engaged and motivated by learning about the subject)**
- **Growing a sense of belonging in your project (feeling a sense of connection and acceptance that builds volunteer resilience)**
- **Addressing other goals**

**5. Are there ways that you do or might engage experienced volunteers in leading trainings, supporting new volunteers, or otherwise helping other volunteers develop their skills, knowledge, or sense of belonging?**

Many citizen science projects are leanly staffed. Engaging volunteers in community-supporting roles can both fill resource gaps and provide more ways in which volunteers can find success for themselves.

## C. Universal Design for Learning - a Framework for Serving a Broader Audience

**6. How do you like to learn?**

Do you read the manual, or just start tinkering? Do you like to learn by watching someone else, or by trying yourself? What, besides time, is the thing that gets in the way of your learning new skills or knowledge?



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It's a very human thing to assume that other people operate just like you do. Identifying and naming how you are most comfortable learning can help you recognize your project's bias towards one mode of learning or another, and unlock insight into the value of offering training resources in multiple formats.

**Universal Design for Learning (UDL)** explicitly advocates for offering learners a choice regarding the flavor of their learning (learn more about UDL at <https://udlguidelines.cast.org>).

Our speaker Holli Kohl offered the analogy of presenting a buffet rather than a plated meal; the former allows those with dietary restrictions a chance to choose what works for them, where the latter doesn't).

### **7. Where do your trainings offer (as an analogy) a fixed meal and where do they offer a buffet of choices? What opportunities can you see for breaking the “meals” up into more flexible component parts?**

And what resources are essential enough to warrant presentation in multiple formats to better serve our many volunteers?

## D. Reflecting on Your Reflection

### **8. After completing this reflection exercise, do you have any ideas for how you might improve your projects training and support resources? Name them here.**

### **9. What great examples of training experiences do you know? Share these now with other NASA Cit Sci Leaders in our shared topic Padlet (<http://bit.ly/PadletVolTrainSupport>).**

What great examples of online learning interfaces have you seen or experienced? Platforms or actual modules might be helpful. What elements made them exemplary for you?



### E. Experiential Exercise

The many projects using the Zooniverse platform offer us a great opportunity to compare one approach to another. For example, some Zooniverse projects have invested in tools to give volunteers feedback during their training. Other projects offer levels of engagement, the more advanced of which are unlocked as a volunteer demonstrates increased levels of accomplishment.

Spend 10-20 minutes using the training materials offered by two projects, Disk Detective and Planet Hunters TESS. [Disk Detective](#) provides a simple training tutorial. [Planet Hunters TESS](#) provides a training tutorial that includes feedback. Once you've spent some time in each project, reflect on your experience in each by responding to the following questions.

**How much time did you spend, or want to spend, on each tutorial? Was one more engaging to you than the other? If so, why?**

**As a volunteer with limited prior knowledge of astronomy, which project would you more likely pursue? If you were a volunteer with extensive prior knowledge, how might your answer change?**