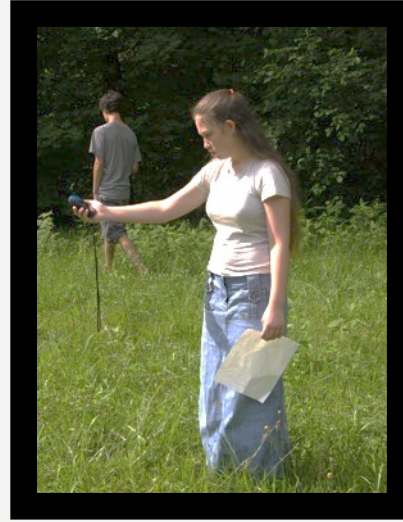


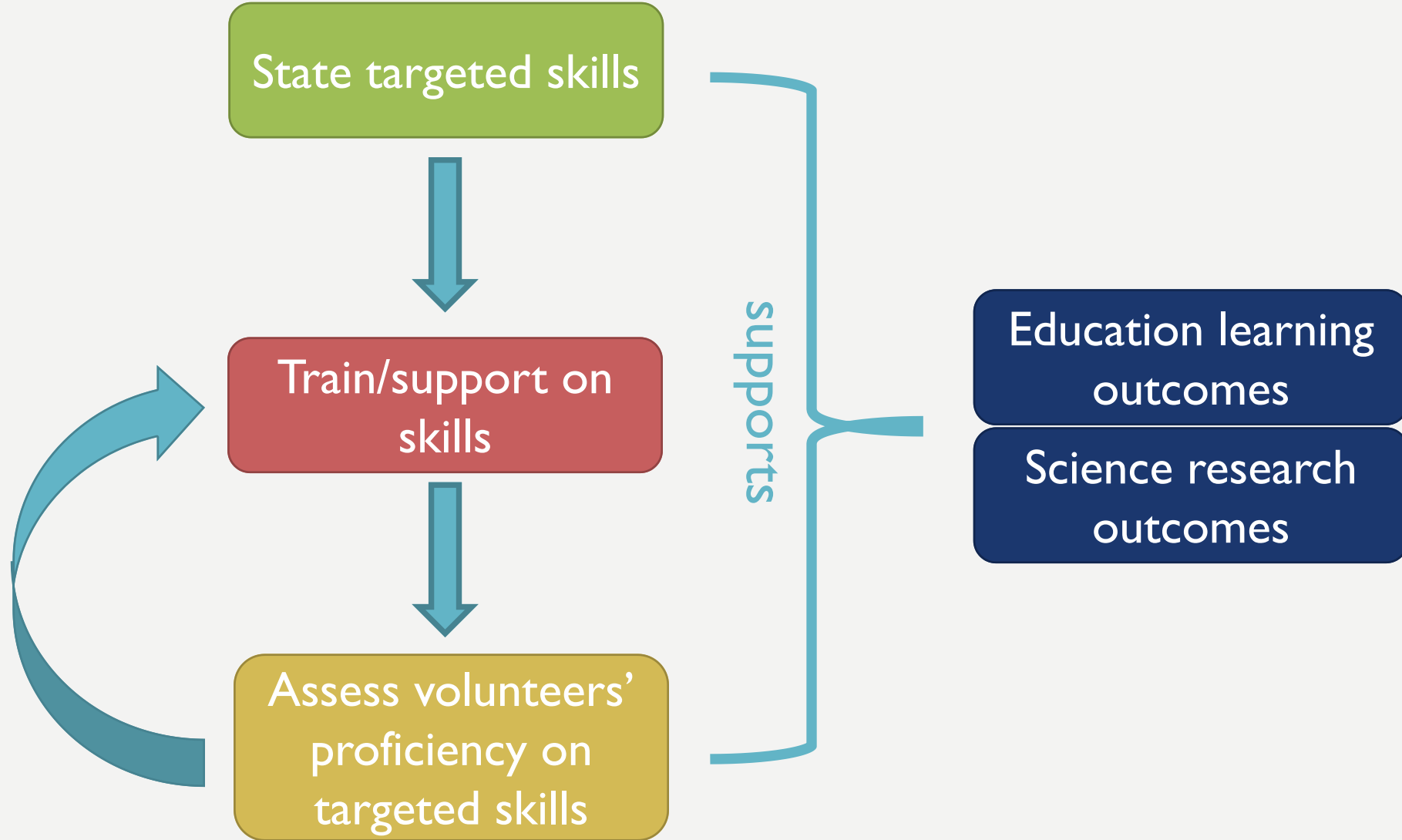
# **Embedded assessment of Skills in Citizen Science**

**CATHLYN (CAT) STYLINSKI**

**WITH**

**KAREN PETERMAN, RACHEL BECKER-KLEIN,  
TINA PHILLIPS, ANDREA WIGGINS**

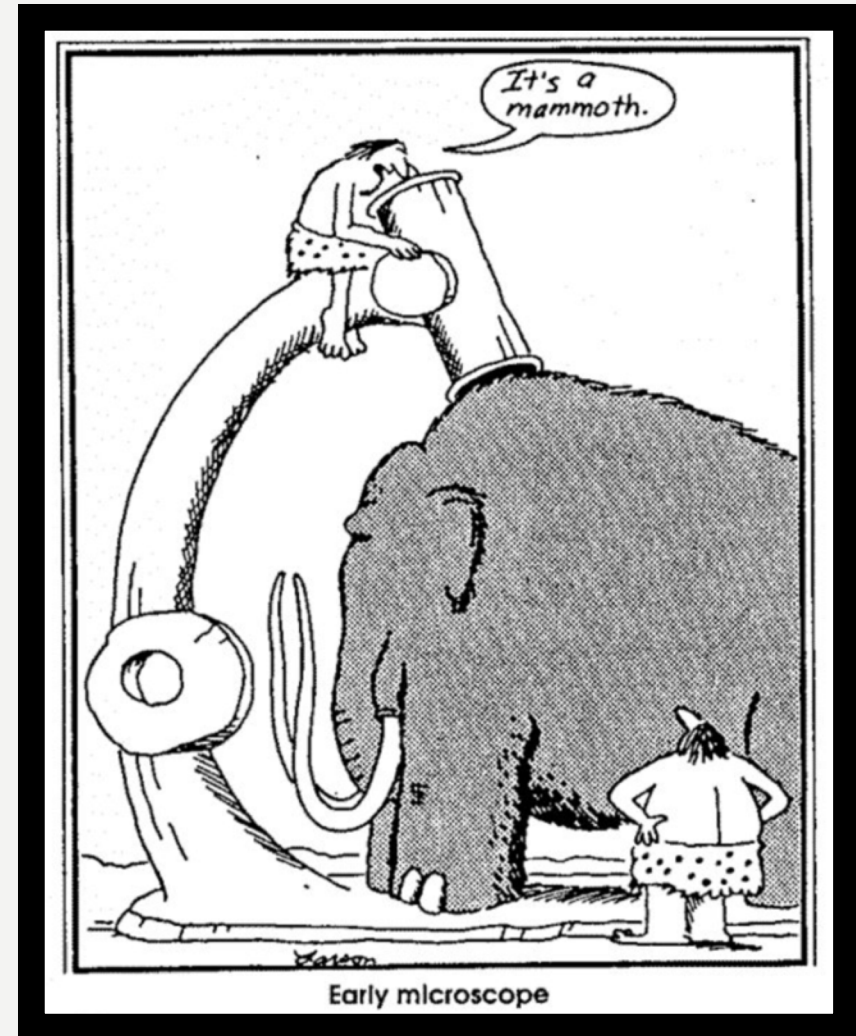




# Taxonomy of skill assessment

*Stylinski, Phillips, Linhart, Becker-Klein & Peterman (in prep)*

- Formal tests (not embedded)
- Informal observations or conversations
- Data validation





# EMBEDDED ASSESSMENT

Allow learners to demonstrate their science competencies through tasks that are integrated seamlessly into the learning experience

*Becker-Klein, Peterman, & Stylinski (2016), Wilson & Sloan (2000)*



## Embedded assessment sample questions

## Scoring checklist



Provide a detailed description tell us where you are and describe the site characteristics. For example, if you are in a demonstration garden at a nature center, describe it and draw a map if you can. Be sure to provide enough information such that someone who is not familiar with the site could easily locate it from your description. If you can, draw what you see as well as describe it.

**Assignment:** SELECT TWO suites of plant and animal questions below to complete for this assignment. Answer the questions as thoroughly as you can in the allotted time. Indicate with an \* next to the number the ones you have chosen for review. If time permits, you can answer other questions below.

1. Find a plant that has green leaves.

a. Describe the location of the plant within the site, referencing your description of the site above, so you, or someone else, can find it again.

b. Describe or draw the leaves of this plant as best as you can. Be sure to include as much information as you can about the size and shape of the leaves.

e. Describe or draw the entire plant as best as you can. Be sure to include as much information as you can about the size of the plant.

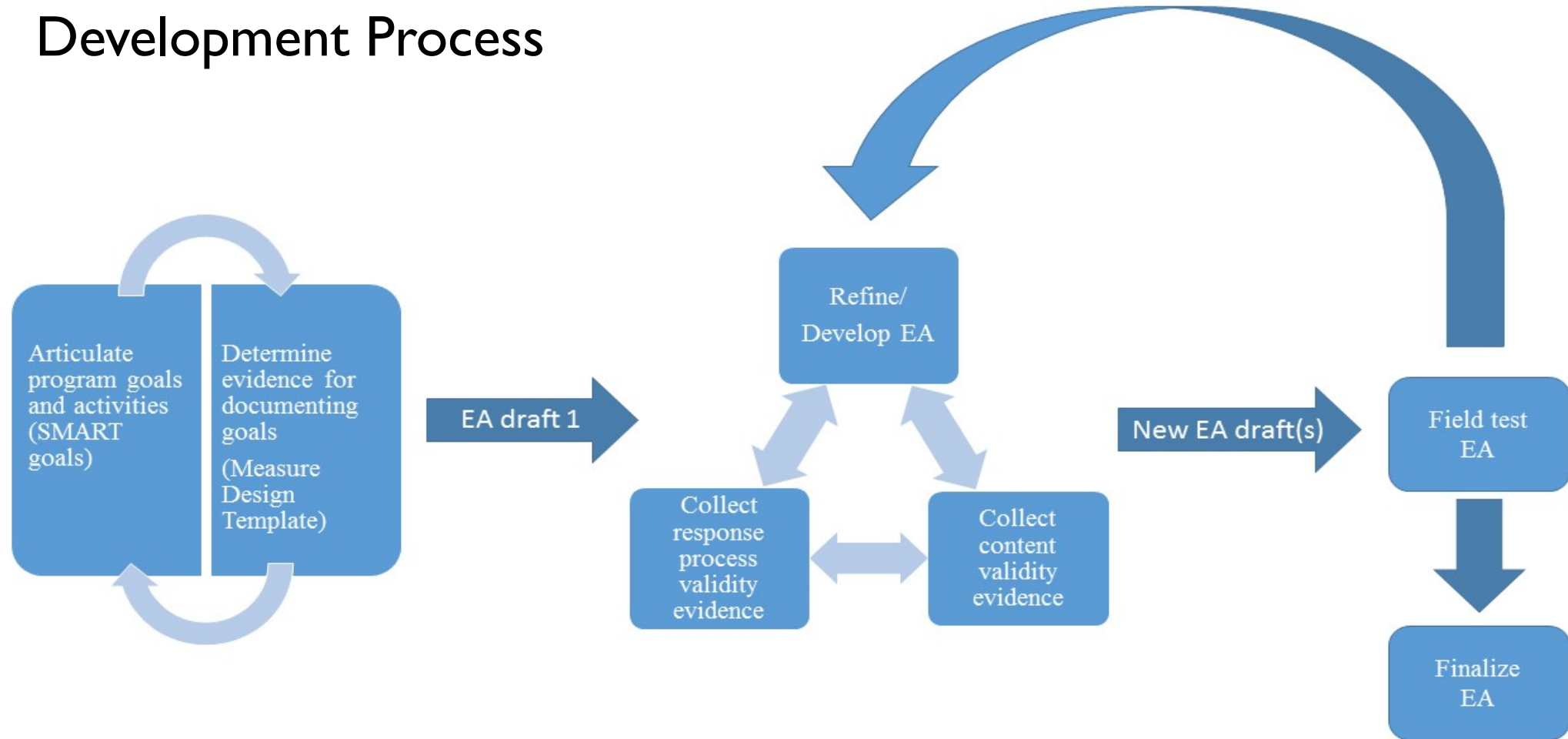
### Scoring Sheet for Paying Close Attention/Observation Nature's Notebook

UPPER SECTION		
Activity	Rating	Comments
Did you notice birds? 0=No, I did not see bird 1=Yes, I did see or hear a bird		
Description of location 0=Insufficient details 1=Sufficient details		

LOWER SECTION		
Activity	Rating (0-4)	Comments
Plant with green leaves		
Plant in bloom		
Plant with fruit		
Pollinator		
Insect		
TOTAL Lower Section (out of 8)	=	
TOTAL Upper Section (out of 2)	=	
OVERALL TOTAL (out of 10)	=	

# Embedded Assessment Development Process

Peterman, Becker-Klein, Styliniski, & Grack-Nelson (2017)



Stage 1

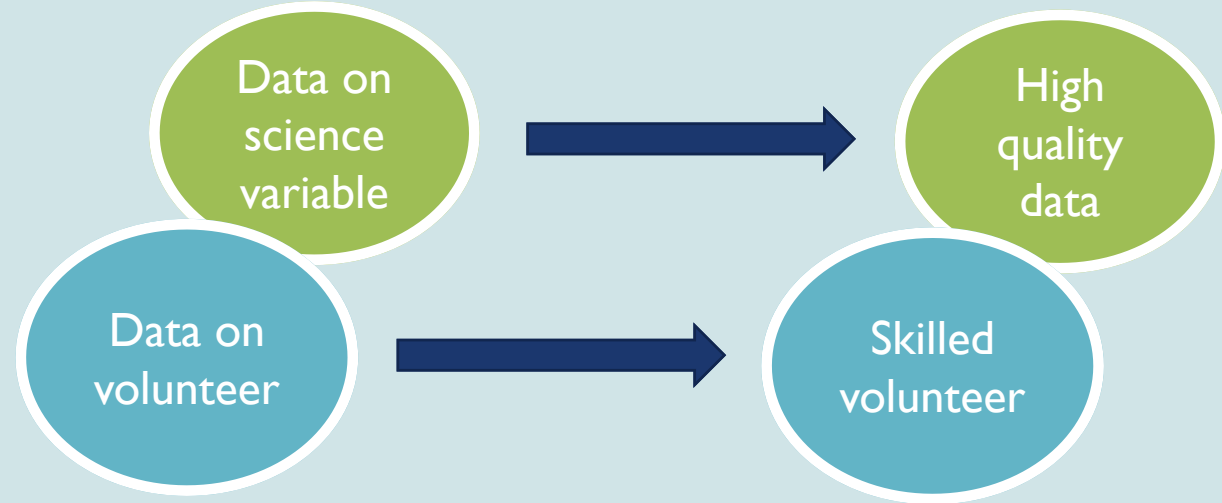
Stage 2

Stage 3

## Reframing data validation



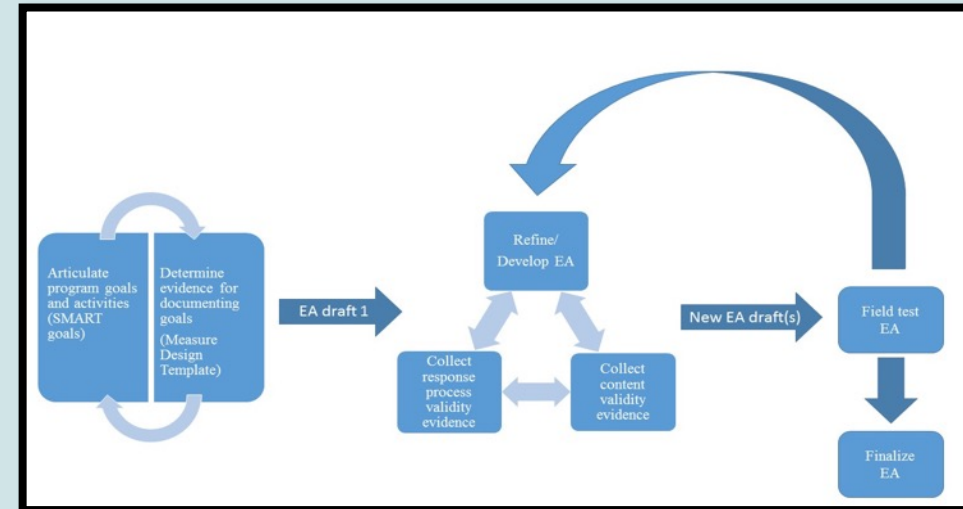
Created by Mofliza  
from Noun Project



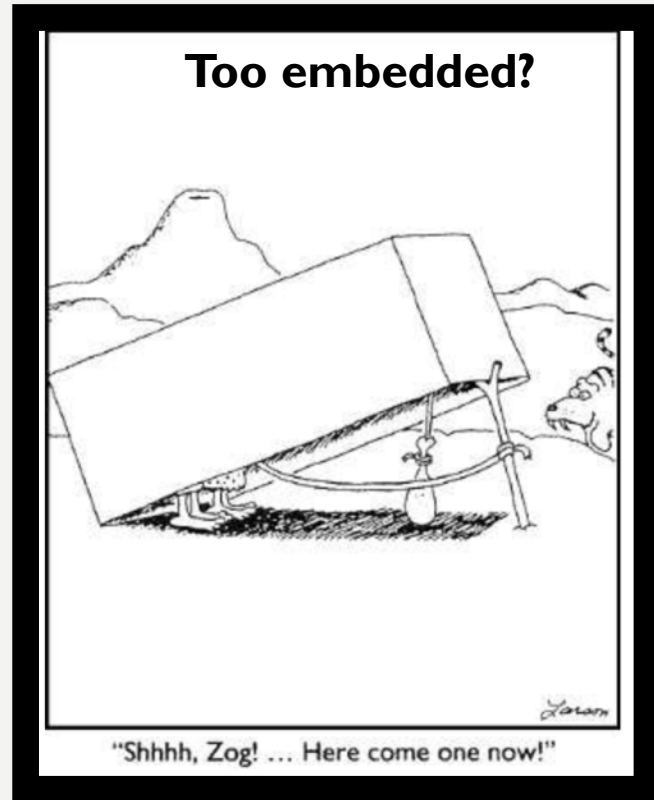
## Common embedded-assessment measures



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## For you....

- *What are your successes or challenges when...*
  - *Assessing volunteers' skills?*
  - *Using embedded assessment or performance assessment in citizen science?*

## Other questions?

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