



CS TRACK
Investigating Citizen Science

Individual Learning Outcomes Triangulation Roadmap

Meeting of WP2 Line A, 14 December 2021



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Relevant documents

- Manual coding of project descriptions

[Identifying learning dimensions in CS project descriptions - Dataset | Zenodo](#)

- M. Oesterheld, V. Schmid-Loertzer, M. Calvera-Isabal, I. Amarasinghe, P. Santos, & Y. Golumbic (2022). Identifying learning dimensions in citizen science projects. In proceedings of Engaging Citizen Science Conference 2022, PoS(CitSci2022) 070. <https://pos.sissa.it/418/070/> [forthcoming]
- CS Track Survey

Goal

Our aim is to investigate the alignment between

- (1) learning opportunities mentioned by citizen science project initiators in CS project descriptions available online,
- (2) learning opportunities shared in tweets from project or platform accounts and,
- (3) the participants' perceived learning experiences as reflected in survey responses and tweets from individual user accounts.

Research question

What are the main overlaps and discrepancies between the project coordinators' and the citizen scientists' perspectives on learning in CS projects?

Parallels between our coding scheme and the survey questions

Coding scheme (cf. Oesterheld et al. 2022)	CS Track survey, question 19: “Have you engaged in the following parts of your citizen science project?”
asking questions	project design
designing studies	
data collection and monitoring	data collection
submitting data	
data analysis	data analysis/interpreting data
data interpretation	
communication skills	discussing results
	disseminating results

Coding scheme (cf. Oosterheld et al. 2022)	CS Track survey, question 21: “What kind of instructions have you received for your citizen science project?”
Training and didactic materials provided	In-person class or workshop
	Online instructions (e.g. written or video)
	Hard copy instructions
	No training

Coding scheme (cf. Oosterheld et al. 2022)	CS Track survey, question 22: “In your experience, to what extent you feel you have learned something while doing the following activities?” (Likert scale)
communication skills	Talking and interacting with others (face to face or in online communities)
Training and didactic materials provided	Attending a training program or studying the material provided by the project (guides, manuals etc.)

Coding scheme (cf. Oesterheld et al. 2022)	CS Track survey, question 23: “In your experience, to what extent have you used the following skills or competencies during citizen science activities?”
critical thinking	critical thinking
communication skills	communication
using technology	ICT literacy

Coding scheme (cf. Oesterheld et al. 2022)	CS Track survey, question 26
Content, Process and Nature of Science Knowledge	In your experience, to what extent has engaging in citizen science supported your understanding of science and scientific processes?