



# Handbook of Youth Citizen Social Science

Working with Young People and the  
Local Community for Social Change



**YouCount**  
Youth Citizen Science

#### YOUCOUNT DELIVERABLE NO. D.5.4

The Consortium is composed of:

OsloMet – Oslo Metropolitan University, Vetenskap & Allmänhet, Södertörn Högskola, University of Central Lancashire, Fundación Deusto (Instituto Vasco de Competitividad (Orkestra)/ Deusto University), University of Vienna, Kaunas University of Technology, Aalborg University, Copenhagen, ESSRG KFT, Università Degli Studi Di Napoli Federico II, SPOTTERON GmbH.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No101005931.

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#### TO CITE THIS PUBLICATION:

Borgström, D., Canto-Farachala, P., Hagen, A. L., Norvoll, R., Rådmark, L. & Lorenzen, S.B. (Eds.). (2024). Handbook of Youth Citizen Social Science. Working with Young People and the Local Community for Social Change. Zenodo. <https://doi.org/10.5281/zenodo.10566411>

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Published by CERN, Zenodo, 2024

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# 7 Pathways to Impact in Youth Citizen Social Science

Authors: Usue Lorenz & Reidun Norvoll



**D**emonstrating the value of research to academic and funding bodies has become more important, leading to a greater emphasis on measuring research impact. However, the term 'impact' presents challenges, especially for social scientists using co-creative approaches like youth citizen social science. These approaches are more consistent with a type of knowledge production that happens in the context of its application, involving transdisciplinary, heterogeneous, and non-hierarchical collaboration within flexible research teams (see Gibbons' knowledge production typologies, 1994).

In the House of Citizen Social Science framework, impact is the growing tree outside, reaching for the sky but grounded in common research aims and societal challenges. In this kind of approach, uncertainties about the outcomes of research activities are common due to interactions and negotiations among participants, leading to varying outcomes over time. These uncertainties may conflict with funders' application requirements, as discussed in [Chapter 3](#) on how to carry out a citizen social science project. Researchers in this field often feel pressured to align their work with specific policy agendas, despite the intricate and unpredictable nature of their research interactions, which may result in divergent outcomes.

Furthermore, for research funders, 'impact' covers various policy aspirations that may go beyond the scope of the research. As a result, the understanding of impact within policy, social science, and collaborative research—such as co-creative youth citizen social science—is complex, fragmented, and subject to contention. So, how should we approach the concept of impact?

To understand and measure impact in collaborative social science research requires a nuanced approach that takes into consideration both the complexities of interdisciplinary interactions, diverse stakeholder perspectives, and the evolving nature of social issues. We believe that by posing critical questions and assessing the multifaceted dimensions of impact, policymakers and researchers can better ground the notion of impact within citizen social science practice, with the aim of fostering meaningful social change and inclusive policymaking. But first, you need to grasp what impact actually is, before we explore how you can measure and assess it.



## What Impact Means In Youth Citizen Social Science

### The Definition, Dimensions and Possible Outcomes of Impact

Defining impact and the entangling of its different meanings and approaches require a first insight of how we understand impact in youth citizen social science. In YouCount, we used the following impact definition:

*Impact are “all the changes that are expected to happen due to project activities”, acknowledging that, “they can occur over different timescales, affect different types of actors, and different dimensions” (Network4Society, 2020).*

According to this definition, the impact objectives of youth citizen social science projects should reflect the expected changes resulting from the research activities to be undertaken. These objectives are intricately linked to the unique characteristics of each project, making them highly context-dependent.

By reflecting on the following aspects of impact, we can refine and align the impact objectives of our youth citizen social science project with its distinctive contextual features and multidimensional nature:

- **Distinguish time frames**

Very often discussion about impact objectives mix in the same pot the expected impacts of different scales. But short-term (within the project lifespan), medium-term (within 5–10 years of the project start) and long-term (after 10 years) impacts need to be distinguished. Otherwise, the research team might be committed to impossible futures, generating internal tensions and frustrations among participants.

- **Connect the impact objectives with the target group**

The objectives need to have a clear view of which people or situations are affected by research. For example in YouCount we analysed the effects of the research in three main groups: the young citizen scientists, the stakeholders and the researchers.

- **Open up for multi-dimensional impact objectives**

What are the changes or transformations that one could expect when doing youth citizen social science? The impacts of youth citizen social science ventures are multi-dimensional, manifesting across scientific, participant, and societal dimensions. In YouCount (D.4.4: Lorenz et al., 2023), we explored and several effects within these dimensions. They are however not exhaustive, leaving room for consideration of additional impacts.

- **The scientific impact dimension** comprises the effects that research is producing in the academia due to an enhanced science-society collaboration such as:

- The co-creation of new knowledge with participants such as young people and stakeholders through their participation in research activities.
- New methods for science education, communication and public engagement.
- Structural organisational changes in research organisations.

- **The participant impact dimension** examines the effects that research has over the participants, such as:

- Science literacy and educational outcomes in terms of improved cognitive competences (knowing) about youth citizen social science and the subject of study.
- Skills for an increased capability to do youth citizen social science (functional competencies).
- Changes in attitudes and behaviours (social competences) gained in the research process.
- Other social outcomes related with the subject of research, such as:
  - Increased opportunities linked with the subject of research (i.e.: increased opportunities for social inclusion, employability).



- Strengthening of social networks.
- Increased social capital.
- Increased citizen engagement.
- **The socio-ecological and economic dimension** captures the changes in the wider environment beyond the individual level, such as:
  - An increased policy engagement with science and citizens' active participation in research and decision making.
  - New social innovations, informed policymaking and governance and policy recommendations.

The impact dimensions and categories mentioned above, reflect possible interesting outcomes to look for in youth citizen social science projects. The following are examples of concrete impact outcomes found in the YouCount project in some of these dimensions and categories.

- Knowledge was co-created by and with young participants and they collaborated in delivering the scientific results of the project (such as publications and books). Youth citizen social science co-developed new knowledge pertinent to social issues affecting younger demographics engaged in the citizen social science project.
- Participants were empowered through their engagement in citizen social science activities. They enhanced their understanding of citizen social science, improving their proficiency in tasks related to youth citizen social science, and improved their ability to interact within their social environments.

## Why Measure Impact In Youth Citizen Social Science?

The importance of impact assessments merged in a preparation meeting with the YouCount Advisory Board and Safety and Ethics Board before a EU review meeting in the fall of 2022. These boards are composed of key experts and policy stakeholders in the field of citizen science and social inclusion.

The board members highlighted the value of impact assessment as a way to understand what young people value from this approach, for managing expectations of the potential effects this approach may have in the societal dimension (societal impact), and address the worries of the stakeholders when it comes to the benefits/costs of adopting this kind of research. The value of impact assessments can be seen from the statements presented below. On increasing the understanding of what young people see as beneficial from participating in youth citizen social science, one board member commented:



***“It would be beneficial to know what impact of collaborative research youth value and want to see more of.”***

In the YouCount project, we learned early on that assessing impact in youth citizen social science projects is really important. Firstly, through measuring impact we are *addressing the growing need for understanding novel approaches*. People in the academic and policymaking world want to understand the value of new research methods like youth citizen social science. Assessing impact helps us see what outcomes come out of these projects and can help in managing expectations concerning the social impact outcomes of such projects. As one YouCount board member commented:



***“It would be good to manage the expectations a bit more in terms of social impact. Good to embed this in a deeper methodological discussion on what YouCount is actually doing.”***

Secondly, there is a need for *making impact easy to understand for everyone*. Assessing impact helps everyone understand why youth citizen social science can be a valuable



approach. By looking at the effects of these projects in a structured way, we can see how useful they are.

This can be done through encouraging conversations and involvement, and through starting discussions among people who can promote these projects, like young people, stakeholders and researchers. Another approach to making impact understandable is by boosting youth involvement and learning. For young people, understanding the benefits and opportunities that these projects can bring to them is important for fostering their participation, engagement and involvement. Impact assessment can address stakeholders' concerns about the potential benefits of this approach, like this board member stated:

*“Some stakeholder groups get a little bit suspicious about all this participatory work. What are real benefits?”*

## The Effects of Youth Citizen Science - Beyond the Scientific Field

The findings in the YouCount project highlight that the outcomes of youth citizen social science goes beyond the project's initial expected effects in the scientific dimension. For example, the various sub-studies show broader empowering and more socially impactful effects in both the participant and socio-ecological and economic dimensions (D.4.1: Saumer et al., 2023 and D.4.4: Lorenz et al., 2023). These broader effects expand the initial expectations in the scientific field of co-creative youth citizen social science.

The broader impact can be seen in the statements from the young citizen scientists demonstrating YouCount's impact in the socio-ecological and economic dimension. Through project activities, new practices of collaboration between youth

**Aha!**  
You need to move beyond the scientific dimensions to understand and assess the social and individual potential of youth citizen social science.

and stakeholders that otherwise would not be possible were developed. Reaching the stakeholders was regarded by the youths as the main achievement of the project, like the youth citizen scientists from the UK and Norway stated.

### YOUTH PERSPECTIVES

*I think the main thing that YouCount achieved was getting the stakeholders to acknowledge points that they already knew existed, but would just ignore.”*  
– Young person from YouCount UK

*Our living labs have given the stakeholders opportunities to meet, talk, collaborate, and find solutions to problems we face in society.* – Young person from YouCount Norway

The following quote exemplifies another kind of effect that the researchers identified as a key social outcome of the YouCount project on the participant dimension: increased opportunities of participation and for being heard.

### RESEARCHERS' PERSPECTIVE

*The young people automatically feel heard, like they matter and belong. By adding stakeholders, they feel valued, like they can have a meaningful impact, and feel appreciated.*  
– Researcher from YouCount Austria



Local stakeholders in the case studies also brought forward that youth citizen social science could create impact by being a new practice for social innovation within the socio-ecological and economic dimension. For example, as seen from the story of a local community stakeholder participating in the YouCount final conference, meeting face to face with young people made all the difference. In his view, young people are residents of the city and council members are interested in making them feel safe and secure. After attending the living lab meetings in YouCount, it was obvious for him that youth wanted to have more dialogues, positive opportunities, leisure and work, feeling safe and more places for them (D.5.3: Norvoll & Plassnig, 2023:64).

Even though this stakeholder had a background in youth work, he would often hear from professionals and not the young people themselves. In his view the research originating from YouCount was useful as it added real stories and real life experiences from youth (Local stakeholder, UK case, panel discussion, final conference, D.5.3: Norvoll & Plassnig, 2023:64).

The young citizen scientists also said that they have learned a lot of things from participating in the YouCount project activities. The graphic illustration above synthesises the main learning points the youths highlighted in relation to the joint ECSA Working Group EIE and YouCount *Webinar 4: Stories from the YouCount Youth – On new perspectives, being heard more deeply and belonging* (28th September 2023, D.1.5: Murray et al.,



*Young Citizen Scientists' perspectives on what they learned taking part in YouCount. Visual Capture by Ruth Graham*

2023). The learning collected in the illustration showcases the broad potential of youth citizen social science, especially for young people.

The YouCount project thus shows that it is essential to shift focus towards the participant and societal dimensions when considering youth citizen social science projects. Such projects have the potential to yield broader, empowering, and more impactful social outcomes than initially anticipated.



## Key Takeaways

- **Incorporate impact ambition in initial project management.**
  - When the project kicks off, it's really important for the whole research team, including young citizen scientists and everyone involved, to work together and figure out what you want to achieve with our project.
  - Let's all agree on the impact objectives based on the three dimensions. Doing this sets the stage for making sure our objectives and expectations all match up.
- **Think about dimensional weight and what matters most.**
  - Understand that not every dimension is equally important. When you prioritise, it should show how youth citizen social science affects participants and society in a special way.
- **Impact objectives can change.**
  - Just know that the objectives we set at the beginning might change as we go along. When we're doing youth citizen social science, the knowledge generation will often be more aligned to what is called “ Mode 2 knowledge production” by Gibbons et al. (1994). This kind of knowledge production is more interactive and often entails complexity and unpredictability. So, our impact objectives might shift and adapt as the project keeps moving.
- **Be flexible.**
  - We need to be ready to adjust based on what's happening in the project and what the participants are telling us during our youth citizen social science journey.

## How to Measure Impact in Youth Citizen Social Science Projects

When we're figuring out how to measure impact in youth citizen social science projects, it's obviously not a one-size-fits-all situation. We've got to shape our process based on two key aspects of our youth citizen social science projects. First off all, just like we mentioned before, we need to look at the specific details of each project – things like the time frame, who it affects, and those multi-dimensional impact objectives.

Second, when we're setting up a process to measure impact, we've got to understand the research methods and activities planned for the project. Because when we're putting together the impact assessment process, we need to consider what research activities are happening, what they're achieving, what methods we're using, and figure out how the assessment fits into the bigger picture.

YouCount's valuable contribution to impact assessment methodology stems from our experience in adapting this process to the specific characteristics of youth citizen social science projects. First, in YouCount we explored how to set up our own methodology departing from a review of the research methods and tasks undertaken in the inter-country research in and across many local cases. The objective was to get to know where the observable data of the effects of the YouCount research could be observed and collected.

### Impact assessment into youth citizen social science practice

In YouCount, we crafted our own way of assessing impact, specifically designed to align with the unique research approach of youth citizen social science. This approach took into account the various research tasks and methods carried out throughout the project. As we mentioned earlier, youth citizen social science involves transdisciplinarity, which means that tackling a problem requires the involvement of different skills, contributing to the solution within its real-world context (referred to as Mode 2 Knowledge Production).



Because collaborative knowledge production in this setting can get messy and unpredictable, it might lead to impacts that weren't initially planned for or not considered within the initial impact objectives. Drawing from our experience in assessing impact in YouCount, we've identified some principles that can guide the development of a tailored impact assessment approach for youth citizen social science projects.

#### Principles for assessing impact:

- **Be welcoming to unexpected discoveries:**  
Encourage the exploration of unplanned findings that may emerge during collaborative research, going beyond the initial impact objectives.
- **Be inclusive and engage different perspectives:**  
Ensure the project includes the perspectives and contributions of all stakeholders, including the young citizen scientists, involved in the research process, facilitating a comprehensive representation of varied viewpoints.
- **Manage a balanced workload:**  
It's crucial to design impact assessment tasks that seamlessly integrate with, rather than clash with, the ongoing research tasks. Set up an agile and adaptable process that is efficient, flexible, and can adapt to changing circumstances.

## Tools for impact assessment in youth citizen social science

The impact assessment framework used by YouCount blends a variety of tools, integrating conventional ones such as logic models (as proposed in models like the Payback Model by Donovan and Hanney (2011), the co-produced pathway to impact by Phipps et al., (2016), or the six guiding principles for a consolidated Citizen Science Impact Assessment Framework by Wehn et al., (2021) with additional tools designed to uncover unexpected outcomes that may arise from collaborative research. We, therefore, propose considering a mix of tools that can help uncover the unplanned outcomes in youth citizen social science. The tools used in YouCount include:

### 1. Logic Models:

These models serve as a valuable tool by systematically linking research activities with their associated benefits. They aid in connecting planned work, allocated resources, and undertaken activities (inputs) to the ultimate outcomes and impact, providing a structured framework for understanding project progression and its broader effects.

### 2. Data Processing and Collection Tool:

An efficient tool for processing and collecting data plays a crucial role by:

- Displaying both qualitative and quantitative impact-relevant data.
- Organising data according to the key elements of the logic model (inputs, outputs, outcomes, and impact), facilitating a clear understanding of the project's progression (including the discovery of new and unforeseen outcomes).

### 3. Process Design for Assessing Emergent Outcomes:

Crafting a structured process to assess outcomes stemming from collaborative research interactions and negotiations is essential. This process should capture diverse experiences within research through methodologies such as storytelling, focus groups, and joint reflections. Measuring impact often feels like an imposed task with conflicting deadlines that compete with ongoing research activities.

#### RESEARCHERS' PERSPECTIVE

*I would have approached the impact assessment differently to ensure researchers feel more connected to its measurement. I would have initiated discussions about impact objectives right from the start, incorporating insights on its value throughout the project, and encouraging research teams to be more actively involved in the task." – Researcher, YouCount*



## Key Takeaways

- **Explore process assessment for unexpected discoveries.**
  - If you want to find unexpected insights, think about switching to process assessment. This way, you can be more flexible and freely explore unforeseen outcomes.
- **Stay flexible and open to the unexpected.**
  - Keep an open mind and be ready for surprises. Plan for unexpected discoveries, so you can actively handle new findings.
- **Make impact assessment enjoyable and engaging.**
  - Use the co-creative methods in citizen social science to turn impact assessment into a fun and engaging experience for everyone involved.

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## FURTHER READING

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**Aha!**

*Dare to deviate from what was planned. Sometimes you need to stay open to see other things than the ones you are looking for.*