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Forum Paper

Embracing inclusivity: the case against the term 'citizen science'

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Abstract

Participatory science and "amateur" participation in scientific data collection and work has been common for hundreds of years, but has become a more formalised field of practice in recent decades. The inclusion and reliance on informally trained members of the public in scientific endeavours has especially helped connect natural history collections to the general public. In recent decades, the term used to describe these participants — citizen scientists — was intended to unite formal and informal scientists as global citizens working towards a common goal. However, the term 'citizen' today has negative connotations for many members of the public and can have a polarising effect on certain individuals. Given that the nature of participatory science is to be inclusive and inviting, it is time to change this terminology. The term 'community' science has been suggested as an alternative by some practitioners and programmes. This self-awareness within the scientific community is important, but lacks impact without input from the community members potentially participating in these programmes. We addressed this knowledge gap by posing the question of term preference to groups of volunteers who

have attended participatory science activities from the Field Museum of Natural History (Chicago, Illinois, USA) and the Natural History Museum of Los Angeles County (Los Angeles, California, USA) from 2019 to 2023. A majority of respondents showed a clear preference for the term 'community' over 'citizen' science. This was especially true for younger individuals and those who belong to ethnic groups other than White. This information can impact which terms are used for specific programme populations and supports community involvement in selecting terminology and in project design. We advise stopping use of the term 'citizen' in all participatory science programmes and adopting terminology that is most appropriate depending on region, research, audience and activity. Moreover, participant populations should be solicited to hear their voices.

Keywords

community science, citizen science, inclusion, participatory science, terminology

Introduction

The term 'citizen science' has been in use since the mid-1990s to describe members of the public collecting data on behalf of scientists and/or engaging in scientific research with or without participation by professional scientists (Lin Hunter et al. 2023). There has recently been much discussion about the possibility of replacing this term, given that the word 'citizen' has taken on a more divisive connotation, at least in the United States (e.g. Auerbach et al. 2019, Heigl et al. 2019, Cooper et al. (2021), Ellwood et al. (2023).) Many of the challenges that the term 'citizen science' has created for potential participants, practitioners, political leaders and academic colleagues are discussed in Ellwood et al. (2023). In this paper, we use the term 'participatory science' as a way to refer to the field without using a term that is also a focus of the study. For many, the goal of participatory science is to broaden participation in the sciences and to remove boundaries to scientific skills and information. Unfortunately, the terms we use to define this process can carry connotations with them and communicate the inclusion or exclusion of certain types of knowledge or backgrounds (Eitzel et al. 2017). Some researchers and practitioners have suggested using the term 'community science' as being more inclusive. Many institutions have begun rebranding their citizen-science programmes (Ellwood et al. 2023), including the recent renaming of the Citizen Science Association to the Association for Advancing Participatory Sciences in 2023. Ellwood et al. (2023) provided six useful recommendations for adopting new terminology for this field including: i) stopping use of the term 'citizen science'; ii) adopting appropriate terminology; iii) announcing the name change; iv) using this opportunity to make your work and that of your institution's more inclusive and accessible; v) justifying choice of terms and vi) beginning dialogue with multiple stakeholders.

Most of this discussion has been in the form of essays and commentary (e.g. Cooper et al. (2021), Ellwood et al. (2023)). Lin Hunter et al. (2023) pointed out that there has been little or no empirical research to provide information about the decision for which terms to

use to describe the field. We, however, would qualify this statement to note that, while there has not been published research on selection of terms, many of the institutions listed by Ellwood et al. (2023) have conducted informal surveys and interviews to provide information for their institutional decisions about terminology. Lin Hunter et al. (2023) did survey practitioners of and participants in citizen science, primarily to determine their perceptions of familiarity and acceptance of the two terms, participant tasks and inclusivity. They found that respondents had greater familiarity with and acceptance of the term 'citizen science' over 'community science'. While an important first step in conducting surveys on this issue, interpretation of the results is complicated by the relatively small number of participatory scientists surveyed (the majority of respondents were practitioners, not participants) and by the small percentage of BIPOC respondents (about 6%).

The Field Museum of Natural History (FMNH) and the Natural History Museum of Los Angeles County (NHMLAC) both have large established programmes involving participatory science and have discontinued use of the term 'citizen science' since 2018 (Ellwood et al. 2023). Over the last several years, we have been asking members of the public who have some connection to a natural history museum if they have a preference for either of the terms 'citizen science' or 'community science'. We are unaware of published surveys that examined relative opinions of these terms. These data can serve as a baseline to help set diversity and inclusion goals as these programmes move forward and achieve greater traction.

To provide a preliminary assessment of people's understanding of the terms 'citizen' and 'community' science, we conducted a survey of participants and professionals in environmental and biodiversity-orientated programmes at FMNH and NHMLAC, as well as practitioners involved with the global online event, WeDigBio (Ellwood et al. 2018) and practitioners involved in participatory science and educational outreach at partner organisations. We recognise that surveying participants is a biased pool because these individuals are already engaged and we are not capturing the opinions of those who are not participating, including those who may choose to not engage with an organisation because of their use of the term 'citizen science'. Undoubtedly, our survey population does not represent the diversity of potential participants and we call for further work that can better assess variation across gender, race, citizenship status and past participation in participatory science on one's understanding of these terms. Surveys would ideally be developed in multiple languages and distributed globally to people who have had different experiences with scientific research and with the word 'citizen'.

Our aim is to determine if there is a preference for the term 'citizen' or 'community' science and to give a voice to participatory science members regarding the terms being used to describe them. The goal of this study is to quantify term preferences and to encourage other participatory science practitioners to perform similar research in order to use language that creates a sense of inclusion and belonging.

Methods

In June of 2019, a Google Forms survey (Suppl. material 1) was sent to 653 members of FMNH's WeDigBio email list. This list consisted of members of the public who had participated in collections-related activities at Field Museum over the previous four years. FMNH volunteers were involved in projects that included broad-ranging collections activities, such as digital transcription of specimen labels, applying barcodes to specimens and various curation projects. These events typically took place over several hours on a single day, with events spanning multiple days. Some participants also became "super volunteers", participating in multiple WeDigBio events over time. All members had received training prior to working on collections activities, regardless of prior experience; this was to ensure that all participants received the same training and methods each time they worked with the collections.

The survey began with a short discussion of the terms 'citizen science' and 'community science', then asked respondents for their preference between the two terms and included additional questions related to the WeDigBio programme as well as some demographic questions. One hundred and sixty responses were received over a two-week period. Summary demographic information is available for this survey, but to maintain anonymity, the detailed demographic information for individual respondents is not reported. The Institutional Review Board (IRB), Field Museum, concluded the survey qualified as "exempt" under the Field Museum's IRB policy. No identifying information was collected, all respondents were adults and none of the questions put the respondents at risk for civil or criminal liability.

To expand the reach of the survey and to enable more detailed evaluation of demographic data, the same Google Forms survey (Suppl. material 1) was sent out in late August of 2020, to email lists maintained by FMNH, NHMLAC, the Association of Chicago Area Colleges (ACCA) and South Metropolitan Higher Education Consortium (SMHEC; Illinois). These email lists included participants from WeDigBio and other participatory scientists with affiliations to the four listed institutions. NHMLAC distributed the survey to an email list of individuals who had participated in iNaturalist training, bioblitzes and/or other participatory science activities organised by NHMLAC as well as to former and current participants in their SuperProject. The SuperProject is a year-long, free programme run by the Urban Nature Research Center (UNRC) at NHMLAC for which volunteers are trained to observe and record nature observations in their local communities using the iNaturalist app (Ballard et al. 2017, Pauly et al. 2020). These participants used smartphones to photo-document biodiversity at least twice a month for one year, leading to a rapid increase in the number and distribution of biodiversity records from areas that previously had very few such records. Additionally, the survey was sent to students and professors at Roosevelt University (Chicago, Illinois, USA), that conducted participatory science and/or environmental education efforts with diverse participant groups.

A total of 572 responses were received by 2 September 2020: 134 from FMNH, 413 from NHMLAC, 16 from ACCA and nine from SMHEC. A follow-up email was sent out 1 December 2023 to the current Field Museum email list, resulting in an additional 66 responses to the survey, bringing the total to 638.

Overall, survey respondents included adults (18 and older) who had experiences with a variety of participatory events both in-person and virtually. While participant's educational and career backgrounds were not collected for this specific group of participants, the Field Museum has collected background data on other, similar groups of participatory science members and are aware, anecdotally, that their areas of expertise are reasonably similar. Backgrounds from other past participants spanned a wide variety of science, technology, engineering and maths (STEM) fields, along with non-STEM fields, such as business, labour, law and fine arts (von Konrat et al., unpublished data 2024). NHMLAC's survey pool included individuals with educational and career backgrounds in education, science, business and law/human relations.

Participants' preference to the terms 'citizen' vs. 'community' science was included in the 2019, 2020 and 2023 surveys. In addition, respondents were able to provide comments regarding their preference. For the 2020 and 2023 surveys, respondents also provided some basic demographic information (gender identity, race/ethnicity and age) and whether they had previously participated in a citizen/community science project. Ultimately, we chose not to focus on gender identity, due to the fact that our question and response options changed throughout the surveys, making this a weak data point.

Our data were compiled from the three pools of survey responses (2019, 2020 and 2023), unless noted otherwise and percentages were calculated using simple ratios. To code the open response questions, we first divided the responses according to the participants' preferred terminology and provided ChatGPT 4.0 with a simple prompt to scan the responses for broad, common themes. Our prompt was "based on this list, can you suggest some titles of how these can be divided into broad categories?" and then provided ChatGPT with all unedited survey responses. This provided us with a framework, which we then manually examined for any other trends and decided on several "buckets" into which the responses could be categorised, followed by manually sorting each response into one or several of these buckets. We used R (version 4.3.1; R Core Team 2023) for graphing. The graphs below were specifically designed with individuals with various degrees of colour perception in mind. Viridis Lite is a colour palette available in R that is designed to address these issues (Garnier 2023).

Results

There was an overall preference for the term 'community science' amongst all respondents. When asked if they had a preference to the terms 'citizen science' or 'community science', 44% of respondents answered 'community science', 30% responded 'citizen science' and 26% had no preference (Fig. 1) .

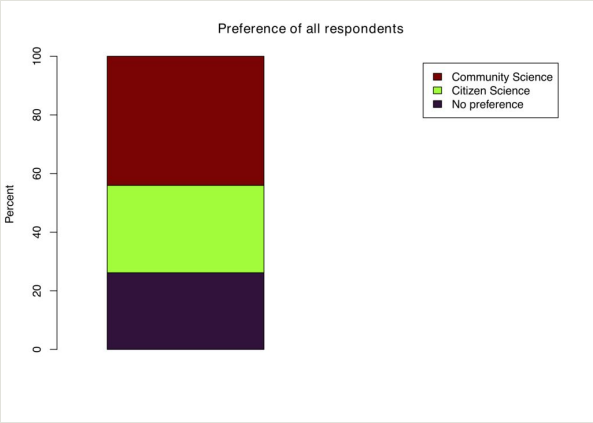

Figure 1. doi

Preference for the terms 'community science' or 'citizen science' for all respondents to the 2019, 2020 and 2023 surveys, n = 798.

When broken down by age groups (Fig. 2), term preference changes across groups. Age groups were determined by the range options given in the surveys. For simplicity, we combined these six original groups into three groups in order to make the data more visible. Of those reporting ages of 18–34 and 35–64, 'community science' was the preferred term (55% and 48%, respectively). For ages 65 and up, 'citizen science' was the preferred term (37%). This age demographic also had the most even term selection of all other age groups: 32% chose 'community science' and 31% had no preference.

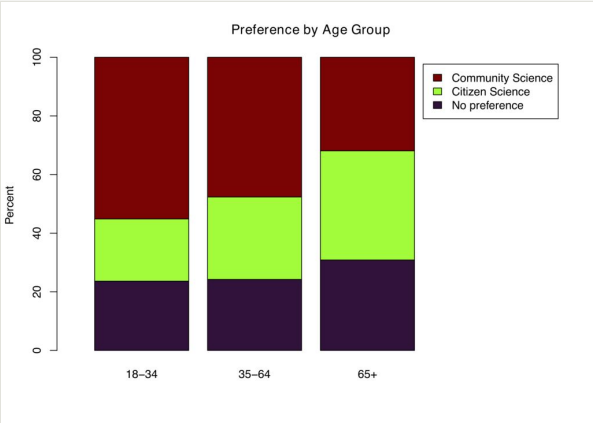

Figure 2. doi

Preference for the terms 'community science' and 'citizen science' by age group from respondents to the 2020 and 2023 surveys, n = 630.

The vast majority of people who answered the 2020 and 2023 surveys identified as White, followed by Latinx/o/a, Asian or Pacific Islander, Mixed-race and Black or African American (Fig. 3). In total, 238 respondents (37%) identified as BIPOC.

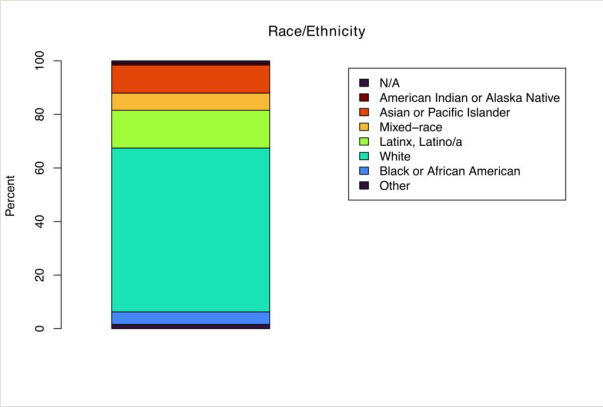

Figure 3. doi

Race or ethnicity as reported by the respondents to the 2020 and 2023 surveys, n = 638.

When respondents were separated by race/ethnicity, a majority of Black, Indigenous and people of colour (BIPOC), respondents (54%) prefer the term 'community science' (Fig. 4). For this evaluation, we defined BIPOC respondents as all respondents who chose an identity other than White or N/A. Of BIPOC respondents expressing a preference, 72% preferred 'community science'.

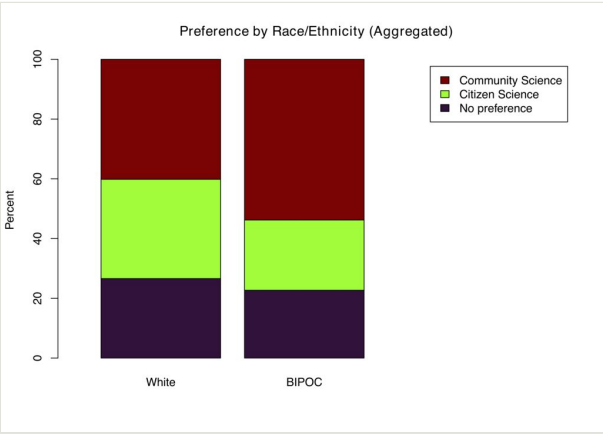

Figure 4. doi

Preference for the terms 'community science' and 'citizen science' as reported by white vs. BIPOC respondents in the 2020 and 2023 surveys, White n = 391, BIPOC n = 238.

Recognising that the areas where a majority of respondents come from might impact their responses, we split the data into our two largest populations by institution, FMNH and NHMLAC. The age demographics of these two groups are extremely similar for participants above the age of 45 (Fig. 5). We do notice, however, that NHMLAC has a larger 35–44 year old population and a much smaller population of 18–24 year olds, compared to FMNH's respondent population.

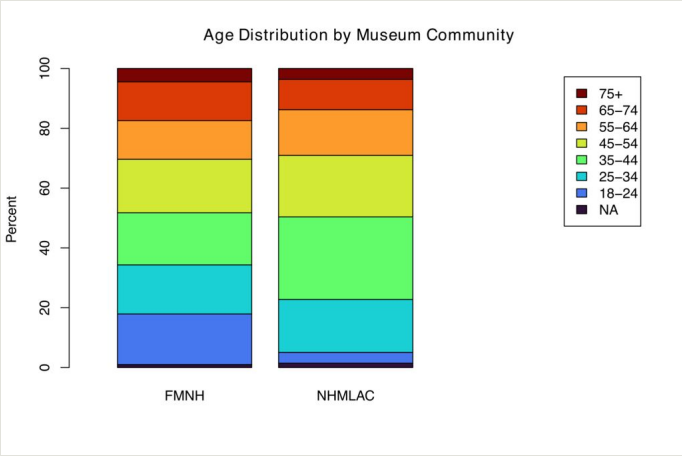

Figure 5. doi

2020 and 2023 comparison of the age distribution of the FMNH and NHMLAC pools: FMNH n = 201, NHMLAC n = 413.

Keeping the two main pools of respondent's contact institution separated, we see that a larger percentage of individuals from NHMLAC prefer the term 'community' vs. 'citizen' (50% NHMLAC vs. 38%, FMNH, Fig. 6). Approximately 30% of the respondents from both pools preferred 'citizen'.

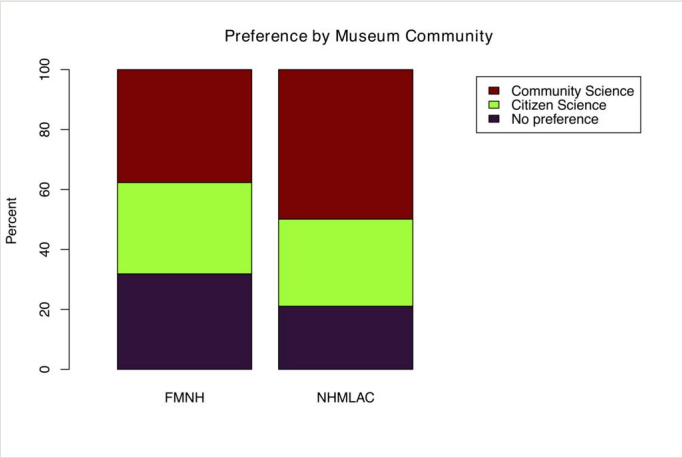

Figure 6. doi

Preference by Museum Community: FMNH n = 361, NHMLAC n = 413. From 2019, 2020 and 2023 survey respondents.

Keeping the population separated by institution and looking at the ethnicity within those populations shows an interesting distinction (Fig. 7). We see that the NHMLAC has a higher population of BIPOC respondents (43%) compared to FMNH (32%), specifically those identifying as Latino/a/x, Asian or Pacific Islander and Mixed-race.

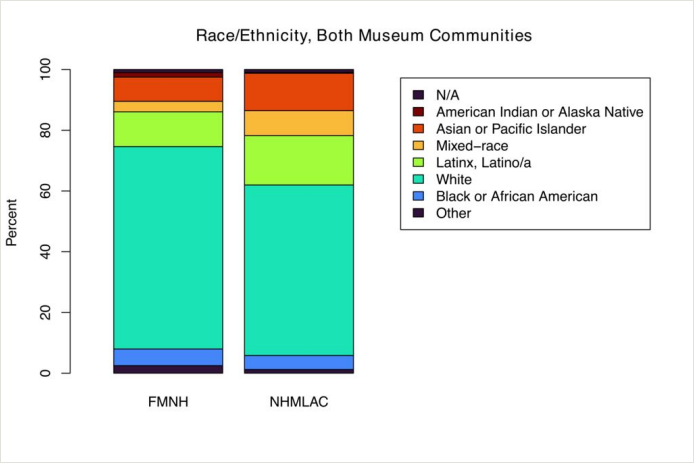

Figure 7. doi

Race/ethnicity by museum community: FMNH n = 201, NHMLAC n = 413. From 2020 and 2023 survey respondents.

When comparing all respondents who had previous experience with participatory science projects and those who had none, we found essentially no difference in term preference (45% and 46% preferred 'community', respectively, Fig. 8).

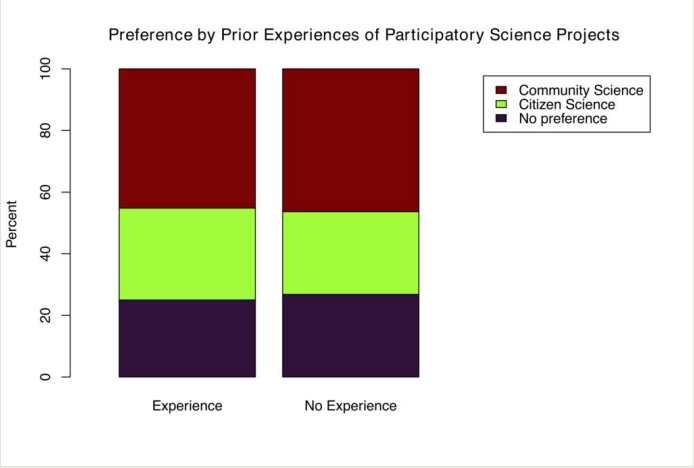

Figure 8. doi

Preference by prior experience with participatory science projects: Experience, n = 500, No Experience, n = 138. From 2020 and 2023 survey respondents.

Lastly, the survey included an open-response question for respondents to explain their preference. Their full responses, as well as all data associated with this question, can be found in Suppl. material 2. We then analysed these statements to explore any trends amongst the respondents who preferred each term (Figs 9, 10, 11).

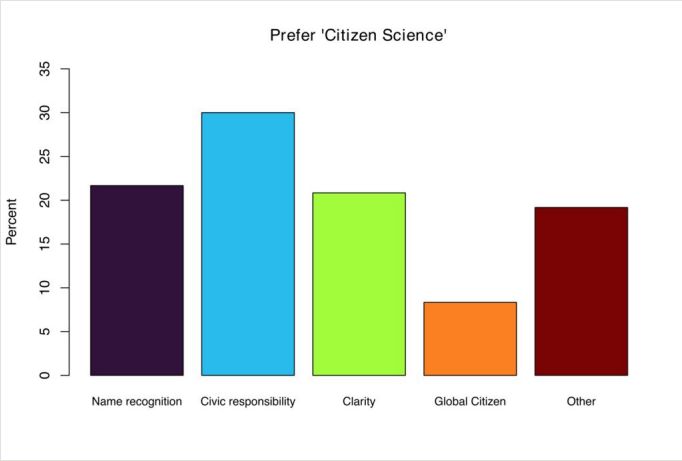

Figure 9. doi

Classification of comments by respondents who preferred 'citizen science'. Name recognition: respondents who prefer 'citizen science' because the term is more widely recognised and already established in the scientific community; Civic responsibility: respondents who prefer 'citizen science' because it emphasises the responsibility of an individual to their community; Clarity: respondents who believe 'citizen science' is a more clear and specific term than 'community science'; Global citizen: respondents who find the political connotations of using the word 'citizen' to be a positive. n = 120. From 2020 and 2023 survey respondents.

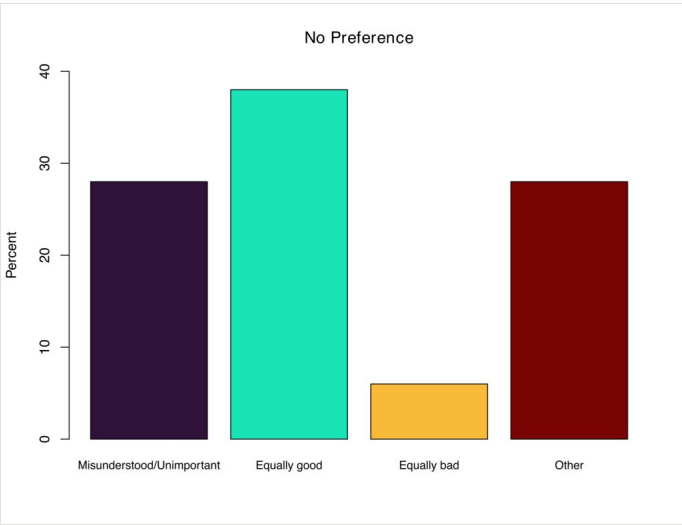

Figure 10. doi

Classification of comments by respondents who had no preference between the terms. Misunderstand/Unimportant: respondents who did not understand the distinction between the two terms or had no strong feelings towards either one; Equally Good: respondents who thought 'citizen science' and 'community science' were equally good; Equally Bad: respondents who thought 'citizen science' and 'community science' were equally bad. n = 50. From 2020 and 2023 survey respondents.

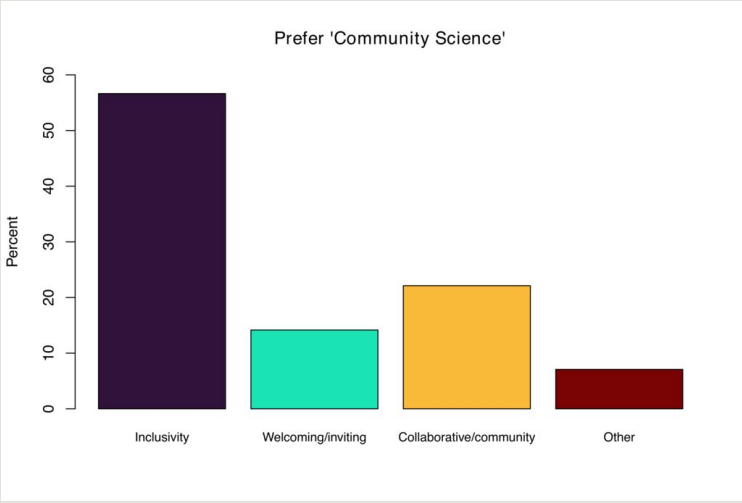

Figure 11. doi

Classification of comments by respondents who preferred 'community science'. Inclusivity: respondents who prefer 'community science' as a shift away from the political connotations of the word 'citizen'; Welcoming/inviting: respondents who find 'community science' to be more approachable, positive and welcoming to all people; Collaborative/community: respondents who like the fact that 'community science' emphasises the role of the collective, joining scientific study with a sense of community. n = 226. From 2020 and 2023 survey respondents.

Fig. 10 addresses the respondents who had no preference between the terms. Many of these respondents stated that they had no strong feelings about either term or did not see a significant difference between the two. However, the most common response amongst this group was a positive sentiment towards both terms and a belief that either term would be suitable for scientific use. Only a small minority was dissatisfied with both terms.

Here are a few select quotes from these respondents:

> "*They both sound fine: 'community' has a more collaborative, group feel, while a 'citizen' feels more like a steward or contributor*".

> "*I can understand the desire to call community/citizen science SOMETHING to empower folks unfamiliar with science to participate. [...] Therefore, I am amenable to any use of terms, as long as an easily understood definition accompanies the term*".

The respondents who preferred the term 'citizen science' (Fig. 9) most frequently reported an affinity for the term's connotations of civic responsibility and a focus on the role of the individual. Many respondents stated that they preferred 'citizen science' for its name recognition, appreciating that the term is already established in the scientific lexicon and others found it to be more clear or accurate than 'community science'. A small percentage of respondents also viewed the political connotations of the word 'citizen' as a positive, usually in the sense of global citizenship and the concept of being united by this.

Here are a few select quotes from these respondents:

> "*I like the emphasis on the individual. I don't have to be part of a group or make a planned event to go out and collect data, I can just do it as part of my everyday life* ".
>
> "*Citizen is more inclusive in my view and less political - enough with identity already*".
>
> "*The Citizen Scientist title has been established with NHM and other sites for years. Why change*?"
>
> "*I like the term because it defines the role more broadly - not just the specific community, but as a citizen of the city/state/country/world*".

Amongst the respondents who explained their preference for the term 'community science' (Fig. 11), nearly two-thirds cited inclusivity and a shift away from negative political connotations as a reason for their preference. Some respondents also simply found the term to be more welcoming and inviting and many others liked the fact that the term places an emphasis on the collaborative, community-orientated nature of this type of scientific endeavour.

Here are a few select quotes from these respondents:

> "*Meaning-making and scientific discovery is a collaborative process--the term community science emphasizes that*".
>
> "*Community is so perfectly expansive. [...] The more community members involved - the larger the datasets - the bigger the science! Science belongs to everyone*".
>
> "*The term 'citizen' is based on settler-colonial practices that are at odds with the values of Earth and environmental conservation. The United States especially weaponizes this term and concept to exclude people of indigenous heritage from access to their ancestral land*".
>
> "*I teach at a large public university in Southern CA - a substantial fraction of our students are DACA/Dreamers, and I feel like the term 'citizen' and its connotations may exclude or alienate this population of students*".
>
> "*It's more welcoming. It also has a community lead that makes it feel less intimidating*".
>
> " '*Community' sounds encompassing and open; 'citizen' sounds exclusive, almost archaic*".

Discussion

Three main themes can be seen from the participant responses: 1) there is a clear preference for the term 'community science' over 'citizen science'; 2) this preference is stronger amongst younger demographics and decreases with age and 3) BIPOC respondents have the highest preference for the term 'community science'.

Overall, the term 'community science' was preferred amongst the majority of respondents. For those respondents expressing a preference, 60% preferred 'community science' (Fig. 1). This preference was seen to various degrees in all demographics (gender, race/ethnicity, age), except for the older age demographic (65+ years old), which slightly preferred 'citizen science' (Figs 2, 4, 6). It should be noted that this age demographic also had almost equal responses to their preferences to the terms ('community science', 'citizen science' or no preference), which was not seen in any other group. This may be influenced by the familiarity of older respondents with citizen science, given that the term has been in use for decades (Lin Hunter et al. 2023). This feedback from participants reflects the idea that terms hold different meanings between groups of people and are in constant flux (Eitzel et al. 2017, Strasser et al. 2018). These results also highlight the importance of surveying a diverse pool of potential users; it is unsurprising that our study found different preferences from the most relevant similar study (Lin Hunter et al. 2023) given that this prior study primarily surveyed practitioners and had few BIPOC respondents (6% in Lin Hunter et al. (2023) vs. 37% here).

Younger people tend to prefer the term 'community science' over 'citizen science' (Fig. 2), with the youngest age demographic (18–34 year olds) having the highest preference for the term. Using terms that are seen as inclusive for younger age demographics could have a large impact on those who feel welcome to participate in science, particularly because many participatory science programmes, especially online projects, are designed with the goals of sharing scientific knowledge and skills to the next generation of scientists (Pandya 2012, Curtis 2018). We note, however, that the importance of age being a factor for term preference is not as impactful when we separated respondents by location. Field Museum respondents had a larger population of younger survey participants (Fig. 5) compared to the Natural History Museum. Yet, NHMLAC had a higher number of respondents who preferred 'community science' to 'citizen science' (Fig. 6), indicating that age is not the only factor impacting term preference.

We see the strongest connection between term preference and race/ethnicity. Overall, people who identified as non-white (Black/African American, Latino/a/x, Asian or Pacific Islander, Mixed-race, American Indian or Alaska Native, other) preferred 'community science' over 'citizen science' (Fig. 4). As scientists and leaders of participatory science projects, we have the ability to change the narrative used in our communications and connections with BIPOC members external to and within the scientific community. It is critical that we use this information to move towards trust-building and inclusion of all individuals.

Participatory science has the potential to develop trust between the community members who participate and scientists or the scientific process (e.g.,Hubbell et al. (2018) Bedessem et al. (2021),Walker et al. (2021), Vegt et al. (2023).) Using inclusive language for these members is critical to not only maintain, but to grow these programmes, especially if the focus is to transfer skills and knowledge to youth. The use of terms that perpetuate polarisation can potentially be damaging to public perception and participation in science programmes or careers (Pandya 2012).

Initially, we noticed that the institution with which our populations were affiliated had an impact on term preference, but upon closer evaluation, it can be seen that the differences in preference are most likely due to the demographic differences between these groups of individuals (Figs 6, 7). In fact, there is a noticeable difference in the two respondent pools as far as race and ethnicity makeup. The Field Museum pool is approximately 67% White and 32% BIPOC, while the NHMLAC pool is approximately 56% White and 43% BIPOC. When combined with the preference of White respondents for the term 'community science' (72% of those expressing a preference), this seems likely to explain at least some of the differences in response of the two pools. This stronger preference to the term 'community' by BIPOC survey participants should not be overlooked and supports the claims that 'citizen' can be a polarising term for certain groups (Cooper et al. 2021, Ellwood et al. 2023).

Other areas of interest are seen in participants' preference to which term is used in relationship to their prior experience with participatory science projects (Fig. 8). While there was still a preference for the term 'community science', there appears to be no preference based on those with experience with participatory science projects and those without. This shows that those who have been involved in the past and those new to the field of participatory science have similar opinions to which term is best. This could present an interesting opportunity for developers and managers of participatory science programmes and activities; if new and experienced members have no clear preference for terms, then changing these terms to be more inclusive may not impact participation by those with prior experience. This shift to more inclusive terms could also make members feel more empowered and create scientific research environments that are more equitable and reflect the populations they serve (Kia-Keating and Juang 2022).

Figs 9, 10, 11 give us some insight towards this particular group of respondents' attitudes towards the two terms, 'citizen' vs. 'community' science. While most participatory science members expressed that their preference for the term 'community' comes from its inclusivity (Fig. 11), the preferences for 'citizen' or neither term were not from desires to exclude members from participating, but rather were based on their understanding or familiarity with those terms. Respondents who preferred the term 'citizen' expressed connections with the term and the ideas of civic duty or civic responsibility on an individual level (Fig. 9).

It must be noted that, even though the term 'community science' was preferred overall, it was not by all, as a large percentage of the respondents had no preference for either term. It is possible that some people who responded "no preference" have a term

preference that does not include 'citizen' or 'community science', but we did not provide them with any other means to express their preference in this survey. We should be wary of any biases that could form from this lack of knowledge. Future surveys should be designed to include other participatory science terms, such as civic science, crowd-sourcing, participatory science, people-powered research or public science (Ellwood et al. 2023) and include an open-ended option for participants to express their own preferred terms. As mentioned above, future surveys should also be distributed to a diverse population, in multiple languages and ideally include respondents who are both familiar with participatory science and unfamiliar with these efforts and their terminology (Ellwood et al. 2023). Critically, the field should strive to assess how terminology is welcoming or potentially excluding those with different experience levels with scientific research and with the word 'citizen' (Ellwood et al. 2023). Project managers of participatory science projects should be mindful of the populations participating in the work, focusing on marginalised community members and use language that is most inclusive and reflective of those members, especially if the goals are to connect the community to science (Cooper et al. 2021). For example, Native Americans and other groups may have a fraught history with the term 'citizen' due to past efforts to limit and/or force national citizenship (Anonymous 1924). When publishing results of participatory science projects, authors should also provide a definition and rationale for the terms they use.

We are not advocating for a term preference in regards to the naming of these types of programmes, but we do strongly advocate that the term 'citizen' is a non-inclusive term, which is polarising to members of the participatory science community. This change is not merely semantic, but pivotal in fostering an environment where all participants feel valued and included. It is imperative that the scientific community immediately embraces this shift, ensuring that the language we use reflects our commitment to inclusivity, equity and the true spirit of participatory science. In adopting and considering a new name for participatory science projects and events, Ellwood et al. (2023) provided in detail an outline of a series of recommendations to consider, including communicating these changes broadly and engaging in dialogue that reflects inclusivity and equity in public participation in scientific research. We urge practitioners to make these changes because not doing so raises the question, is participatory science that alienates or excludes individuals really participatory science?

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Conflicts of interest

The authors have declared that no competing interests exist.

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Supplementary materials

Suppl. material 1: Community vs. Citizen Science Survey Questions doi

Authors: M von Konrat et.al.
Data type: Survey questions
Download file (57.84 kb)

Suppl. material 2: Community Science vs. Citizen Science Survey Responses doi

Authors: M. von Konrat et. al.
Data type: Survey responses
Brief description: Coded and free form responses to surveys on opinons about the terms Community Science and Citizen Science
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