Partnerships for Impact

A WORKBOOK FOR
INFORMAL SCIENCE EDUCATORS
AND OUTREACH SPECIALISTS WORKING
WITH DIVERSE COMMUNITIES

Who are the ICBOs?

We are community leaders representing underserved communities throughout the U.S.A. We call ourselves the ICBOs (Independent Community-based Organizations). We initiated community-based participatory research, using Grounded Theory and Critical Race Theory approaches, and asked more than 30 community organizations to weigh in. We, as community researchers, participated in all phases of the research. The objective of our work is to improve equity, diversity, and inclusion in STEM (Science, Technology, Engineering, and Mathematics) through research.

Sometimes research approaches themselves can be part of the problem when trying to understand equity, diversity, and inclusion in STEM. For instance, even informed researchers may tend to use frameworks and literature that originate in the dominant culture to inform their research; ask questions that may not really get at the issues; and may leave underserved communities feeling as if they are being studied. These problems create an even greater sense of mistrust. Knowing this, we wanted to lead research that would, instead, represent our communities' perspectives.

Visit our NSF video:
http://stemforall2018.videohall.com/presentations/1127

Illustration by José González.

About this Workbook

Do you want to implement projects and develop strong collaborations in diverse or "underserved" communities?

This workbook is a product of research conducted by community-based organizations and the Cornell Lab of Ornithology over three years, focused on how to create equitable partnerships between informal science institutions and community-based organizations in underrepresented communities.

The objective is to improve equity, diversity, and inclusion in STEM (Science, Technology, Engineering, and Mathematics). The research comes from questions asked by community researchers to more than 30 other community organizations. It represents the community perspective.

Community researchers believe that by developing transparency around issues of power and privilege, partnerships can become more equitable and increase trust. Photo by Marilú López Fretts.

Table of Contents

All quotes and stories in this booklet come directly from the participants of the research.

Visit our blog:
power30icbos.blogspot.com

Illustration by José González.

Themes explored

Power and Privilege

"It takes money and time to be able to shift culture, acknowledge and name racism, and pivot the organization towards a more inclusive organizational culture.

It can't be a back-burner issue. It has to remain front and center even in crisis."

Realities and Relevance

"The mistrust runs deep and there will always be seeds of anger and insecurity just like any other relationship, because it is a partnership. So, it takes deep inner awareness."

Trust and Transparency

"I don't think you ever 'achieve' trust. Trust has to be maintained just like a certain temperature or speed when walking.

I see trust as a spectrum, so we never stop working towards increasing the level of trust and then maintaining that level.

You know you are at an optimal level when your partnership becomes resilient to tension, mistakes and push backs."

Commitment and Collaboration

"The mission statement of my organization is something I can't negotiate, as it is in the interest of the people whom I serve.

What is most important is what one values and how hard one is willing to work to implement those values."

Illustrations by Carlos Figueroa.

Power and Privilege

Institutional Racism

Most community-based organizations don't address issues of institutional racism present in collaborations with dominant culture science institutions, even when blatantly present.

Our research also indicates that most science institutions are "clueless" about how institutional racism is manifested in their institution or choose to ignore it. Yet when partners address issues openly and collaboratively, the resulting partnerships tend to be more productive and beneficial for the community. It is helpful when community organizations set clear boundaries.

- How does your institution define institutional racism?

- How does your community partner define it?

"The people who lead our organization and sit on the board are people with economic advantages, resources, influence, and they are accorded respect personally and professionally. The majority are white men.

They are the ones that make the important decisions, distribute the budgets, and decide on the development of programs and projects.

Yet consider that our community is 90% below poverty level and the majority of households are black or mestiza women with low education."

"Let's say you have programs for youth, and all you see is white youth coming to these programs. That's institutional racism 'cause you didn't do anything intentional to support and provide the benefits for youth of color. It's not the intent; it's the impact. You can have the intent of "I don't wanna be racist," but you provide more benefits to white people than people of color.
That's what institutional racism is.
That's how it plays out within our system."

The community researchers met in person in Philadelphia at one of the partner organizations to discuss preliminary results and next steps of the research. Photo by Marilú López Fretts.

Trickle-Down Engagement

We found that most community organizations believe that science institutions put the majority of their funding, staff, and power into programming for dominant culture audiences and expect that it will "trickle-down" to the community. This decreases trust.

• Does your institution prioritize work in underserved communities?

• Is there an institution-wide commitment to equity, diversity, and inclusion? Is funding equitably distributed among programs for dominant culture vs. underrepresented cultures?

• Is leadership involved in programming specifically co-created for the community?

Illustration by José González.

*"Because my work is across the USA,
I feel that it is detrimental to address racism
among the audience that holds
the purse strings.*

*I address it in an indirect way.
It is my hope that eyes will be opened and
minds will be changed so that we can find that
middle ground and we can all come together."*

Walking on Eggshells

Our research shows that community-based organizations don't feel like they can be honest with partners when they see institutional racism. They feel like they are "walking on eggshells," because addressing inequity might harm their organization or community.

"In multicultural situations, it's been helpful to acknowledge power differentials and not tiptoe around, but name those things and work to address them."

Illustration by José González.

Reflecting our Community

It is important to look at our institution carefully to understand if it reflects the community we wish to serve. Does our leadership reflect the community? Does our staff and board reflect the community with which we wish to collaborate?

Use the following chart to help you think about these issues within your institution.

Number of people on the Board	
Number of men	
Number of women	
Number of minorities	
Number of people who come directly from the community	
Number of people who live in the community	
Educational level of most board members	
Income level of most board members	

Community families learn drumming during an event organized by WorldBeat Center at Balboa Park in San Diego. Photo courtesy of WBC.

"When it comes to equity, it's necessary to have a discussion around power and privilege as well, being committed to talking about it, when it plays out, because it's gonna play out. Just because you understand equity and are committed to equity doesn't mean you're immune to falling into the traps of dominant culture or inequity."

Tightrope Approach

Community leaders indicate that in their experience, science institutions hire one or two people of color to do "outreach" and do not give them any decision-making power. These individuals tend to be short-term hires and many are inexperienced in equity, diversity, and inclusion. In addition, there is no support for the work they are doing. The science institution sets the course for their work (the tightrope) and the outreach staff cannot significantly change the direction, scope, or depth of the work once they start if more funding or support is required.
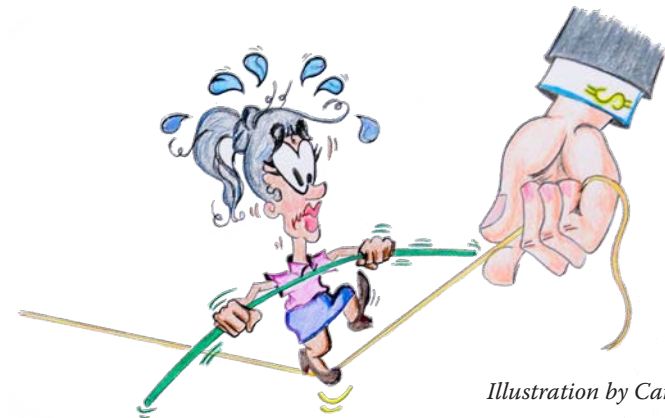

Illustration by Carlos Figueroa.

Robin Hood Approach

Community researchers found that many community organizations will put up with collaborations and partnerships that are untrustworthy, inequitable, frustrating, and lack transparency in order to obtain funds and opportunities that they feel can be channeled directly to their communities.

• Why do you think community-based organizations sometimes use the "Robin Hood Approach"?

"It's a long line of power that has not been fair to institutions of color from grants to employment.

If you find people of color in a powerful position, they've been hand picked to be docile.

Always use your mission as your guide and know that we are standing on the shoulders of giants and we are their seeds."


Illustration by Carlos Figueroa.

Children participate in the WorldBeat Center's Outdoor Classroom program where they learn about sowing seeds, and the pollination process. Photo courtesy of WBC.

> *"When you send your best representative and your counterpart sends someone who has no knowledge or decision power, it sends a message."*

Third Best Man

Our research also indicates that science institutions will often send someone who has no experience in the community, no authority within the institution, and no decision making-power, to represent their institution at key planning and negotiation meetings.
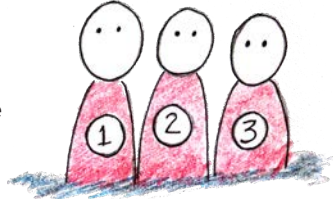
> *"When you look at the culture, does it support a white-dominant culture approach to doing things? For example, "There's only one right way of doing things, and that's the way we do it, and you have to do it that way also." That's a dominant-culture approach, and it's not based in reality. The reality is that there a number of right ways to get to the end goal. Do you provide opportunities for people of all different cultures to be able to do it their way?"*

Exclusion

Our research indicates that inclusion is a key factor of successful collaborations. Being included in "lead team" meetings is important throughout the partnership and can create or break trust. Inclusion should occur throughout the planning, implementation, dissemination, and evaluation phases and should be a long-term commitment— even when not funded.

Examples of exclusion include using technical language or lingo, wearing clothing that demonstrates dominance, choosing meeting venues that are difficult to access or feel exclusionary, not showing up or not inviting community-based organizations to key meetings, requiring advanced degrees or valuing them more than experience, not paying attention at meetings, choosing dissemination of results via channels that exclude non-academics (ie: peer review journals), and more.

Community researchers work during their in-person meeting in Philadelphia. Photo by Marilú López Fretts.

- Does level of education exclude experienced individuals from meetings and decision-making?

- Take a few minutes to think about how your institution excludes community members. Think about leadership, programming, publishing, research, grant writing and more. Write your thoughts here.

- Have you seen your institution knowingly exclude community members? Write examples here.

Address the issue of exclusion openly and directly within your institution and with your community partners. Encourage self reflection.

- Who is included in decision-making?

- Are your community partner's ideas valued and respected? If not, how can you ensure that their voices are heard equitably?

Community researcher Bobby Wilson presents at a conference for urban farmers in Alabama. Photo courtesy of MAUF.

- Is the racial/cultural/gender makeup equitable in meetings?

- What are ways in which your institution can demonstrate to your community partners that you are working towards a more inclusive organizational

- Is your staff committed to working and collaborating equitably with underserved communities? Is everyone on board?

Community researcher Marcelo Bonta during a group meeting in San Diego, California. Photo by Marilú López Fretts.

"Many times, informal science institutions request large funding and more than half goes to administrative or staff, and less than half goes to the program. And meanwhile, many community-based organizations will use their funds on programming and little to none on staff because they run on volunteers.

There must be a new way to calculate equitable distribution based on the needs of the organization and their time and effort on the proposed project.

It can't be based on degrees because community-based organizations have employees that have a lot of experience with no degrees which many times is worth much more."

Internal and External Barriers

- How might your collaboration be perceived by the community?

- How is your institution perceived by the community? How do you know this?

- What institutional barriers are there in place that make it hard for community members to have a voice in your institution?

"When one side is historically resourced and the other under-resourced, economically, then there is a tendency towards arrogance on the part of the former and distrust on the part of the latter. So first, the arrangement needs to be rectified..."

- What barriers are there in place that make it hard for community members to have a voice in your field? (Your field might be sciences, environmental education, hunting, fishing, birding, etc.)

- Take a look at past budgets. Has your institution paid the community equitably for their expertise?

The Baja Bird Festival began with a Kumeyaay blessing as they, as people, returned to the sacred mountain Mount Cuchama in Tecate, Mexico. The festival was possible through a collaboration between Cornell Lab of Ornithology, the WorldBeat Center, Culture Beat Mexico, Casa del Túnel and Fundación La Puerta. Photo by Carlos Delgato.

"I personally do not address issues of power and privilege, as I lack the skill to do so.

Sometimes when issues are not addressed the silence becomes permission to continue with mistreatment.

If we don't acknowledge and understand institutional racism and the role it has played in creating barriers... we are always going to butt-up against it."

Kids enjoy nature at the WorldBeat Center in San Diego, California. Photo courtesy of WBC.

"It is too often that people feel 'used.' It's easy to see organizations led by 'whites' are more often funded and work together. Organizations led by people of color struggle and it takes time for them to grow."

"It's hard to say when you know little about the funding process and know it'll always be the 'Good Ol Boys Club.'

Opportunities to get funded get more complicated every time. Sometimes it is the language that's used in grant applications, and other times it's the new requirements to apply, including particular forms of media to present the work (not all community-based organization have the equipment or staff), or complicated financial reports.

We know that by complicating the grant process, only those with paid grant writers and other supporting staff can apply and they eliminate grassroots organizations from applying."
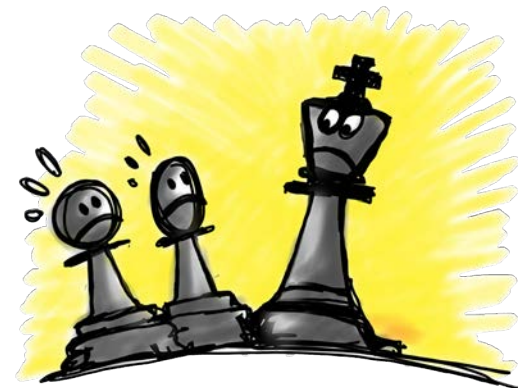
Illustration by José González.

"Informal science institutions have credibility with the city, large funders, and government institutions.

A community-based organization may be more likely to receive a grant or sponsorship if they name the informal science institutions as partners.

Informal science institutions can help influence decision makers whether it is in city council meetings, city funding meetings or even state or national conferences.

Informal science institutions have more resources including funding, staff, assets, information access for grants, new laws, conferences and more.

Community-based organizations could benefit from all of this. Informal science institutions could be better empowered to serve their community."

Maintaining the Status Quo

Partners tend to behave in ways in which they are accustomed, and this reinforces the status quo. We found that community-based organizations sometimes behave in ways that are disadvantageous to themselves and their communities or may continue working in collaborations that are not equitable and may not ultimately benefit their organizations. Science institutions behave in ways that maintain their power and privilege.

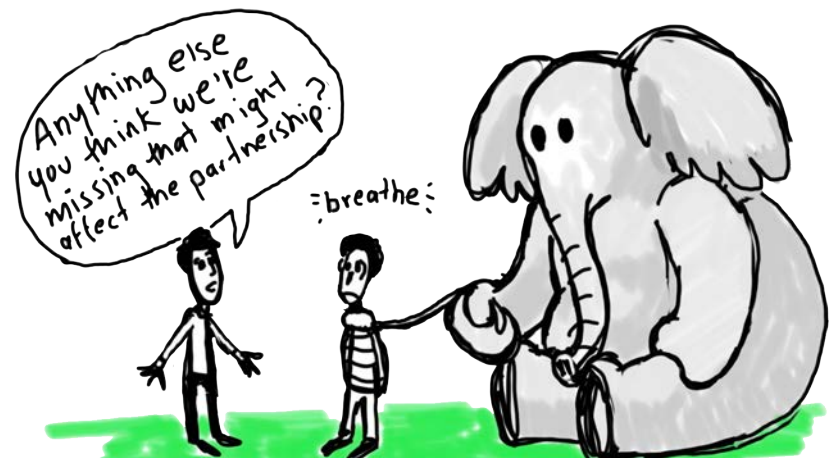- In what ways does your institution maintain the status quo?

Illustration by José González.

Reflection

- Is your institution responsible for trickle-down engagement?

- How do you ensure that your community partner doesn't need to "walk on eggshells"?

- Has your institution hired staff specifically to work in underrepresented communities?

- How much power and funding does your community outreach staff have?

- Who represents your institution at community meetings?

> *"Before you go into a partnership, you need to be clear on what your non-negotiables are. I think that's important to have that discussion from the beginning because, sometimes, partnerships aren't meant to be. For me, it is the commitment to equity. If you don't even have an understanding of what "equity" means, or have a decent understanding of it, or aren't open to learning, then it's not gonna be worth our time and energy to partner."*

> *"The legacy question also needs to be addressed: how much cultural and intellectual knowledge that is unique to a community is being taken for free or cheap...?"*
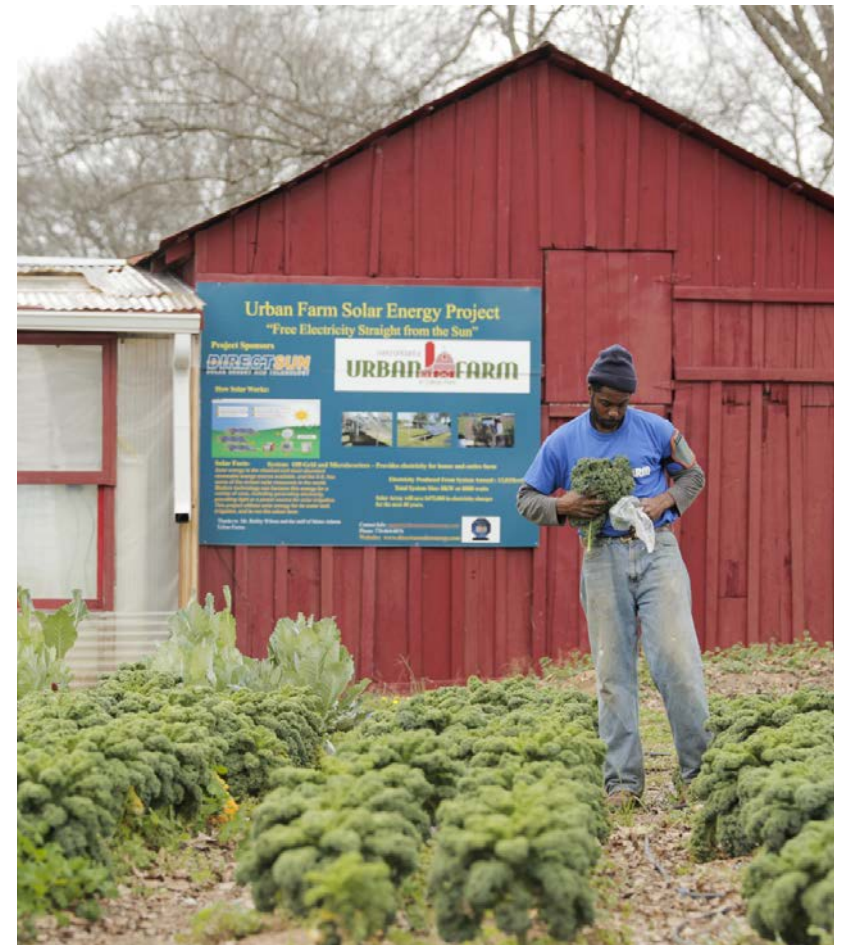
The Metro Atlanta Urban Farm is one of the community organizations leading the research we share in this booklet. Photo by Marilú López Fretts.

Trust and Transparency

Our research shows that developing genuine trust is one of the most important aspects of a successful partnership between a STEM institution and a community-based organization. Because of a long history of inequities, developing trust needs to be a long-term commitment. There has to be continuity, openness, and a real desire to make it happen. Working through challenges successfully and spending time getting to know each other personally (socially outside of the project) increases trust.

Transparency is key to increasing trust. But transparency means different things to an informal science institution than it does to a community-based organization. We found that finding alignment on what transparency means is important. Clear and consistent communication also helps increase trust.
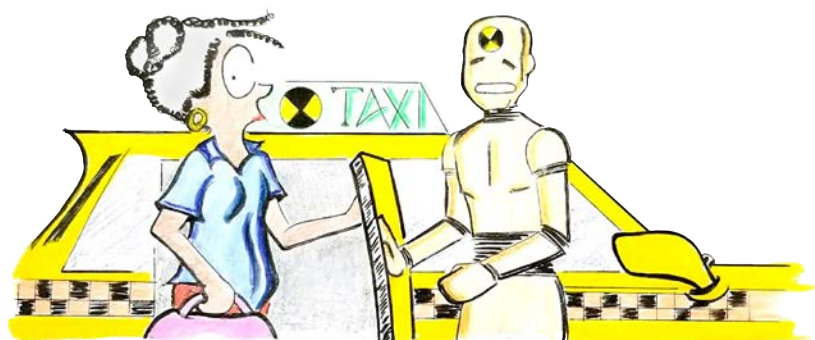
Illustration by Carlos Figueroa.

Co-create Projects

Before you partner with a community-based organization make sure that you understand each other's mission, goals, and measures of success and find alignment. Don't rush the planning and budgeting stages and begin the collaboration before co-writing the grant proposal.

- Who is at the table to establish project goals and co-create the budget?

- What are your aligned goals for the project?

- What are your aligned measures of success for the project?

- Is your institution interested in /willing to co-develop programming or do you generally use top-down approaches? If so, have you begun the conversations before writing grant proposals?

Budget

Our research shows that transparency in the budgeting process is key to building trust. Co-creating the budget is essential to success.

• Has your institution paid the community-based partner organization for its expertise equitably? Look carefully at past budgets before answering.

• Is your institution willing to continue working in the underserved community after the funds run out?

Community researcher Bobby Wilson of Metro Atlanta Urban Farm receives a shirt from community researcher partner Worldbeat Center. The group developed trust and friendship. Photo by Marilú López Fretts.

Children from La Joven Guardia del Teatro youth troupe read a screenplay in Spanish. Photo by Marilú López Fretts.

"I will know that I have achieved trust when I am included in 'important' planning meetings and/or events where significant decisions have to be made and where I am included in the decision-making process."

Inclusion

Our research indicated that inclusion is a key factor of successful collaborations. Inclusion can create trust and should occur throughout the planning, implementation, dissemination, and evaluation phases. Does level of education exclude experienced individuals from meetings and decision-making?

• How has cultural knowledge been respected and included in projects in the past?

• How can you work directly with your partners to ensure that cultural knowledge is respected and included in your project?

• Are there procedures, rules, and institutional structures to ensure that community members and their voices are included in your institution? Think about projects, research, educational content, boards, staff, and leadership.

"At first, you might spend years doing it. Dress like them, speak their lingo, network, go to meetings in hopes that your organization will be accepted.

You hope you will be accepted if they know your vision. Eventually, you realize that they are actually racist and ignorant of the experience of people of color.

And then you realize they partly don't care because they are elitists, and then you realize you don't want to be part of their club anyway. You then realize that you were never a part of the 'club' and understand why you missed out on meetings and other activities."

How does this quote make you feel? Why? If you could ask the author a question, what would you ask? Can you imagine the experience the author may have had? How might this quote impact your awareness of working with community-based organizations in the future?

Illustration by José González.

Communicate with Clarity and Transparency

Clarity, transparency, and honesty are essential in all communication for a partnership and project to succeed. Our research found that honest, open communication works best when it is a long-term commitment. Clarity requires self introspection and a willingness to address difficult issues.

- Have you communicated your short and long term goals for your institution to your community partner organization?

- Have you communicated your vision for what your institution hopes to accomplish in the underserved community? Does your community partner believe your vision makes sense?

- Have you shared your personal goals?

- Has there been a conversation with your community partners about the history of your partnership? Has there been a conversation about the history of your field with the community?

- Is the budget completely equitable and transparent? Describe how you established the budget.

The community researchers found that face-to-face contact promotes authenticity and transparency. Photo by Marilú López Fretts.

"Communicating on a superior level in opaque and didactic terminology breaks trust."

"It's not just about the one who is hurting you, you really have to look deeply where the fear and attachment to power is coming from."

"Among people of color lots of 'opportunities' are given before trust is 'broken.'

Loyalty is important, though, we have a hard time 'trusting' people who work for the establishment, and also want to work for the community.

Or community members who represent their personal agendas and not of the community or organization."

Community researchers and Cornell Lab of Ornithology met at Metro Atlanta Urban Farm in Georgia to discuss the research. Photo by Marilú López Fretts.

- What methods or means of communication have you tried?

- Have you experienced difficulty in understanding some of your partner's perspectives?

- How can you align your goals?

"Always assuming a 'lead' role, making the partnership resemble a 'dictatorship' breaks trust."

Community researchers walk around a Philadelphia neighborhood. Photo by Marilú López Fretts.

History of Power and Privilege

It is important to address past inequities in the sciences openly and with clarity. Our research found that this is a key step in building trust with your partner organization. Address "the elephant in the room" openly, with honesty, and with a clear plan to overcome past challenges.

- Has your institution worked in this community before? What happened?

> *"They have to work for the people
> and not just the elite."*
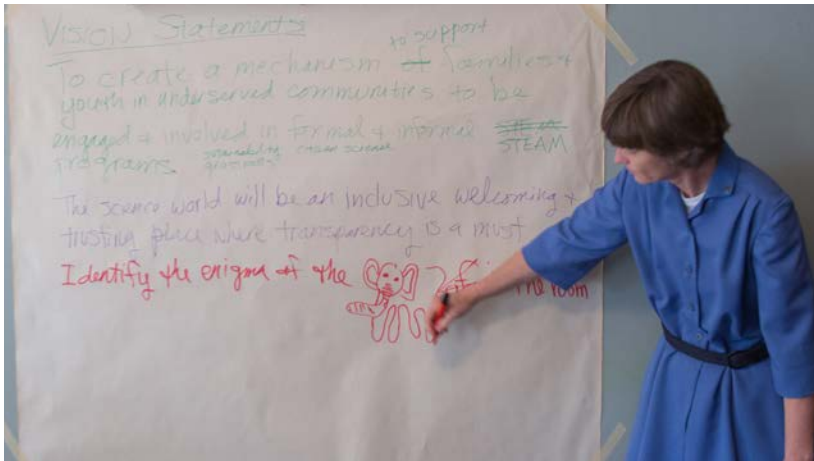
Community researcher Sister Sharon Horace of St. Vincent de Paul in Philadelphia brings a broad perspective to the project through her work with low-income communities across the world. Photo by Marilú López Fretts.

- How have you developed long-term relationships with partner community-based organizations?

- Does your institution think that the work in the community has been successful?

- Does your partner community believe that the work has been successful? How do you know?

> *"Trust building takes time and effort
> beyond what most grant-funded projects allow,
> so funders and institutions need to come
> to grips with this reality before embarking
> on community partnerships."*

Photo by Marilú López Fretts.

Access

We found that when informal science institutions use their power and connections to provide their partner organizations more direct access to funding streams, networks, and resources, trust increases. Community-based organizations don't want pre-packaged, top-down programming. They don't want to be told how to help or save their own communities. They want to have the resources, networks, and access to channels that will allow them to create or co-create programming that their communities want and need.

- How can your institution use its power to provide access to funding, networks, and resources to your partner community organization?

The community researchers spent over a year building trust among each other and created an inventory of community strengths before beginning their research work. Photo by Marilú López Fretts.

Illustration by José González.

Know Your Worth

When community-based organizations understand their power and communicate it clearly when partnering with more resourced STEM institutions, the community benefits. Our research found when community organizations understand the value of their expertise and leverage their worth, it generally works to their favor.

Illustration by José González.

> *"Trust is demonstrated when that colleague or partner laughs and communicates on a personal level.*
>
> *Breaking bread together shows a true valued friendship has developed."*

José Miguel Hernández Hurtado, one of the community researchers and director of La Joven Guardia del Teatro in Syracuse, NY, mentors inner-city youth. Through theater he helps build character and self-confidence among at-risk children, mostly from Latino and underserved communities. The group performs in Spanish. Photo by Marilú López Fretts.

After reading this quote, do you agree or disagree with the statement? This may seem more "personal" than "professional." Are you willing to get out of your comfort zone to build trust?

Illustration by José González.

"*When you see your partners helping out at the community event completely and unrelated to the work you do, but helping the community, you have the extra level of respect and trust and know how committed the partner is.*"

The WorldBeat Center is one of the organizations leading the research we share in this booklet. Photo courtesy of WBC.

At right, community researcher Fanny Villareal, of Nosotros Radio, brings her perspective of the Latino communities in Central New York.
Photo by Marilú López Fretts.

Realities and Relevance

Logistics

Community representatives believe that details can make or break a collaboration and it is especially important when developing trust with community-based organization partners. Pay careful attention to the details and timing of communication, budgeting, and strategy.

- When is the best time for your community-based partner to talk?

- What is the best mode of communication? In person meetings? Phone? Email?

- Are you willing to call after hours?

> *"My days don't play out at a desk, which always made it hard to have an hour-long informational call when I was in the field."*

Guinea Pigs

Our research found that community organizations feel that science institutions use underserved communities to obtain grants, do research, and 'check' off diversity and inclusion requirements. They expressed anger at not seeing clear benefits for their communities, an absence of follow-through or sharing research results, and lack of long-term commitment.

- How does each institution/organization benefit from the collaboration? Who has benefited in the past?

- How does the underserved community benefit from your collaboration, research, and programming?

> *"I felt more like [we] were guinea pigs and there was no real support built in …. And again, I understand it's for research's sake, but these are real people and these are real relationships … like, there are real kind of implications, I guess, and consequences…"*

- If research is being conducted in the community, who is being studied and why? Who will benefit?

- Are members of the community involved in asking research questions and interpreting results?

- Have community research collaborators been named as authors?

- Have community partners/organizations been paid equitably for their expertise?

> *"Because CBOs are often do-gooders, it is assumed that they will help with the project putting in extra hours-time, etc... for the privilege of working with a larger institution. Many of us don't even know that it is acceptable to be funded for our expertise."*

Savior Syndrome or "I Know What You Need"

Community researchers indicate that science institutions want to "save" or "fix" their communities, and don't think the community has knowledge to make meaningful contributions. Science institutions are confident that their expertise and resources are best and want to implement pre-packaged, top-down programming, even when it is not relevant or effective.

> *"A science institution can believe, 'Oh, I have these services and programs that will benefit these communities, so I'm gonna bring them to you and this is how you will benefit from them.' That's completely the wrong way of doing it!"*

> *Do you want to help or save my community? Are you sure we want to be saved? Our research finds that many science institutions believe they know what programming is needed in underserved communities and implement top-down approaches that are not effective or relevant.*

Illustration by José González.

Grant Funding

Research participants stated that they were frustrated by their inability to access meaningful funding streams directly and felt that funding cycles did not allow time to develop trust and establish equitable collaborations with underserved communities. Some also felt that research questions in grants seldom, if ever, originate from their communities.

Illustrations by Pixabay

- Did you contact your partner community-based organization BEFORE co-writing the grant or seeking funding?Have you shared the entire budget? How are the funds distributed?

- Does the grant include community advisors? Are they being paid equitably compared to other advisors?

- Are there plans to obtain research approval from a Community Review Board as well as an Institutional Review Board?

- Who will ultimately benefit from the grant award? Is there a long-term plan?

Inequitable Pay and Credit

Our research results tell us that underserved communities don't feel that their expertise is valued, fairly compensated, or given equitable credit in their collaborations with science institutions.

"We like to work with organizations and partners that have the same goals; not just because the informal science institution needs to partner with a CBO for grant purposes."

![Commitment and Collaboration logo]

Commitment and Collaboration

Authenticity and Motivation

Illustration by Carlos Figueroa.

Our research shows that community-based organizations often question the authenticity and motivation behind partnerships with STEM Institutions. Most community organizations believe that powerful institutions are motivated by money and funding requirements or an individual's career advancement and do not genuinely care about benefiting underserved communities. Understanding motivations is critically important to the success of the collaboration.

- What motivates you to work in the community?

- How did your work get started? Was it a grant, request from the community, or an institutional mandate? Was it something else?

- What do you bring to the community?

- What can people in the community teach you?

- Will this relationship be mutually beneficial for both partners? If so, in what ways?

- Do your partners and the community have advantages over you? If so, describe them.

Mission Statement

Our research found that an authentic mission statement that prioritizes work in underserved communities is important for the success and continuity of projects. It also reaffirms the commitment of individuals and the institution to do this work long-term.

• What is your institution's mission statement?

• Does your mission statement explicitly name equity, diversity, and inclusion? Does it state anything about working with underserved communities?

• Do you "live out" your mission statement? How?

• Does your mission statement guide you in decision making?

"A mission statement is really helpful when things go wrong... because it is easier to know that the person is here for the right reasons."

"Being part of a mission driven organization where all members of the organization are encouraged to understand and practice the mission every day and in every interaction, builds trust and cohesion."

"Most organizations have good mission statements, but many of them don't live them out."
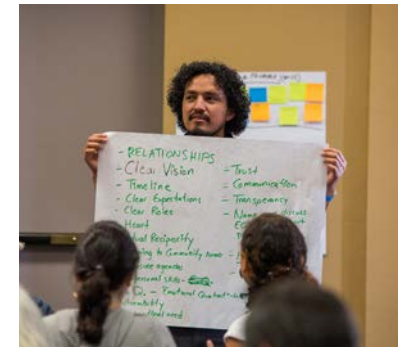

Photo by Marilú López Fretts.

Alignment

Our research shows that science institutions are gatekeepers to the sciences and community-based organizations are gatekeepers to their communities. Science-serving institutions need community-based organizations to reach communities historically underrepresented or excluded from the sciences. Community-based organizations are trusted in their communities, have knowledge and understanding of the community culture, and have much needed personal connections to networks. They speak the language, and understand the strengths, realities, and barriers.

Your community's perspectives are essential for the success of the project. Compare the goals, strengths, and barriers of your community with those of your partner institution.

- Do you understand your partner's goals? List them here:

- Do you understand your partner's strengths? How do you plan to leverage those strengths?

- Do you understand barriers you may encounter? List them here:

- Have you worked with your community partner to effectively understand community strengths and barriers?

- How do you plan to address barriers? Describe here:

- Name advantages that your partner community organization and underserved community have that can improve the field of science.

- How does involvement with your partner community organization benefit your institution?

- What expertise can your partner organization and community offer the project, research, and institution?

- Do you feel you have anything to gain from partnering with your partner community organization?

> *"I think for people of color it is boring if it's not real, and we know how to look between the lines and distinguish real from not real.*
>
> *So, it's hard for us to convince ourselves to work on a project when the partner is in the project for superficial reasons."*

Youth of La Joven Guardia del Teatro Latino gather before their theater performance. Photo by Marilú López Fretts.

José Miguel Hernández Hurtado, director of La Joven Guardia and one of our research partners, involves families in his community through theater in Spanish. Photo courtesy of La Joven Guardia.

Goals

- What are your **institution's short-term goals** in the community?

- What are your **institution's long-term goals**?

- What are your **personal** goals?

Measures of Success

- What are your **institution's** measures of success for working in the community?

What are your **community project's** measures of success?

What are your **personal** measures of success?

Examine your goals and measures of success with those of your partner.

- Are your goals and measures of success aligned?

> *"We like to work with organizations and partners that have the same goals, not just because the informal science institution needs to partner with a community-based organization for grant purposes."*

Photo of a young person and his mentor from Camp Compass, one of the community-based organizations leading the research shared in this booklet. Volunteer mentors are making a difference in the inner city by providing hunting, fishing, archery, tutoring, social guidance, and other outdoor youth activities. Photo courtesy of Camp Compass.

Bridge to Conflict

Community researchers found that they can be more effective when they first build bridges or find commonalities to develop trust and only then begin to address inequalities and conflict.

Illustration by Carlos Figueroa.

> *"So it's not just a commitment to equity; it's also demonstrating having a history of implementing it, of implementing internally, as an organization, or a history of partnerships across difference."*

Evaluate with Honesty

Our research indicates that community-based organizations believe that evaluation is important to understanding their communities, developing trust, growth and long-term excellence. Always think about your mission when you evaluate.

• Is the project serving the community you are trying to reach?

• Does the evaluation include the community's perspective and is it co-created?

• Have you asked your partners to evaluate you and your institution honestly? If so, what would that evaluation look like?

• Is some of the feedback from your partners hard to hear? Don't take it personally. Use it as a compass for growth and this will build trust.

• Do you think you are getting honest feedback? If not, how can you encourage for direct feedback?

> *"In addition to planning events or activities, I want to experience them, and evaluate them and learn from them.*
>
> *Here it is not just about checking the box indicating something was done.*
>
> *Here it is about meeting people, sharing information, informal recruiting, becoming part of the community and nurturing relationships."*

Camp Compass Academy, a partner in this research, reaches inner-city students and provides hands-on experience and lessons designed to broaden their knowledge of the outdoors. Photo courtesy of Camp Compass.

Have My Back?

Our research found that trust is strengthened when STEM institutions use their power and privilege to uplift community organizations in the long-term or go out of their way to stand by their partners during difficult times.

- Has your institution gone out of its way to uplift or stand by partner community organizations? If so, what happened?

"Because community-based organizations are often 'do-gooders' it is assumed that they will help with the project putting in extra hours-time, etc... for the privilege of working with a larger institution.

Many of us don't even know that it is acceptable to be funded for our expertise."

"In those moments when people may be looking down upon me or really oppressing me, it helps to know that I have a partner from the dominant culture, who has my back. When that partner identifies the oppression, accepts me and supports me in my organization, and uplifts us in a good way in the partnership."

What do these quotes say about how community-based organizations view or perceive their relationships with larger institutions?

Illustration by José González.

Work through Challenges

Community researchers learned that when mistakes are made and partners work through difficulties in a timely way with genuine desire to fix issues, it reinforces trust. Communication is key. If conflicts are ignored, they may become insurmountable barriers to successful collaborations and implementation of STEM programming.

• Did you take time to get to know the community organization (its leaders, mission, projects) before entering into a partnership?

• What are your strategies for working through challenges?

"We like to work with organizations that really want to relieve suffering and teach true history through the arts."

The WorldBeat Center's programming creates unity through music, art, dance, education, sustainability and technology in San Diego, California. Photo courtesy of WBC.

"The one commitment – so this is a non-negotiable for me – is to be able to talk about power and privilege and process it, identify what happened, and then try to improve so that we don't fall into the same behaviors and have same type of fallout."

> *"Presupposing that informal science institutions can strengthen their local community-based organizations and communities is a bit colonialist, when in fact, I believe it's the community-based organizations and communities that could strengthen the informal science education institutions."*

Youth of La Joven Guardia del Teatro gather before their theater performance. Photo by Marilú López Fretts.

In the photo at right, families from Mexico's Tecate, Tijuana, Ensenada, Mexicali, and San Diego, California, participated in the first annual Baja Bird Festival organized by the WorldBeat Center, one of the community-based organizations leading the research shared in this booklet. Photo by Yadira Moran Paz.

Valuing Work in the Community

- Does your institution recognize, reward and value staff for working well in underserved communities?

- Does your institution provide training to new staff for working in equity, diversity and inclusion?

- Does your leadership demonstrate through their actions that working in the community is an institutional commitment?

Inner-city youth from one of the organizations leading this research create a bird garden as part of a citizen science project. Photo courtesy of Nosotros Radio.

Face Time

Our research shows that when staff and leadership from the science-serving institution spend time in the community (above and beyond programming) it contributes to greater understanding of the community and commitment to the work. Spending time in the community seems especially important in establishing motivation, understanding 'who benefits' from the collaboration, and creating authentic relationships. Sharing meals together, being present at community events, volunteering or helping out, and simply being present matters. It is especially important for leaders to be seen in the communities they are trying to reach.

- Are you willing to spend time in the community—beyond just the project?

- Are you willing to go out of your comfort zone to get to know people in the community?

"Honestly, one of the most important lessons I have learned is to stop by places in person and to keep coming back if you want something to even start."

Gratitude

Thank you, thank you, thank you! Our research indicates that a genuine and heartfelt thank you means a lot. Collaborations are strengthened when you genuinely recognize and acknowledge the community for contributions.

- Are you honestly grateful for your partners and collaborators? Do you see and acknowledge their contributions? Please describe.

- List five things you have learned from your partners. Have you shared these insights with your collaborators?

The team enjoyed a sunset near San Diego during our last meeting in California. Photo by Marilú López Fretts.

- Have you publicly and honestly thanked your partners and the community? (Within and outside your institution.)

- Has the leadership of your institution spent time in the community?

- Are you willing to continue working in the community after the funds run out?

"You know, just because I retired from my job doesn't mean I retired from my community."

The WorldBeat Center focuses their programming on making nature accessible to all children through cultural learning activities. Photo courtesy of WBC.

"At the request of the residents at a farm worker housing community meeting a community organizer asked the adult learning department of the local community college why they didn't offer any classes (English as a Second Language, citizenship, GED, etc.) in this community with a rapidly expanding, but already sizable Mexican immigrant population. The person in charge complained that these Mexicans had no interest in learning English. They were always dropping out of the adult education classes, which, without sufficient nose-count, had to be closed.

"When the residents were asked, they stated that they hadn't been able to attend the classes offered by the community college because of schedule conflicts with work hours, pace and content of the classes were not accessible to those not literate already in their home language, deprecating comments or attitudes by the teacher and other college personnel, and lack of relevance to learner's purposes for speaking English, etc. And the request to have the classes in the community room at the housing community itself had been flatly turned down."

Illustration by José González.

Illustration by José González.

"People of color tend to participate more when they have ownership in a project and can somehow represent their culture in an authentic manner."

Youth from a community-based organization leading this project enjoy the outdoors. The organization integrates adaptive Science, Math, Social Studies and English curriculum; develops character and self esteem through student-centered learning, and hunting and fishing. Photo courtesy of Camp Compass.

Wrap up

Explore the following before engaging in a collaboration or starting science programming in an underserved community:

- Who is the community?

- Why would the project be of interest to the community?

- How will the community benefit?

- What expertise do you have to engage with the community?

- Have you spoken to anybody in the community to gauge interest and desire to participate?

From the community's perspective, your desire to "engage" participants without considering these questions could appear as a desire to "use" them for free labor to collect data with no benefit to the participants. Or it might feel as if you want to "save" a community that has no desire to be saved.

It is important to acknowledge that the communities you are trying to engage have been historically underrepresented or excluded from the sciences. Trust must be gained and projects must be co-created.

Illustration by José González.

The ICBOs would like to dedicate
this workbook to
our friend and partner,

Pepe Marcos-Iga.

We are forever grateful for your invaluable dedication, insight, and contribution to our collective work. You leave an important legacy in the field of environmental education, conservation, equity and inclusion. We'll miss your sense of humor, your brilliance, and your passion for building a more just and equitable society. Thank you, Pepe.

Photos by Marilú López Fretts.

And one day
As I'm sitting here nostalgic of things to come|
Remembering fondly what's still to be
The laughs will stop
The smiles will be no more
I will be distant from the warmth of hope
And I may be only left with memories
If I fail to see
The moments I have between you and me
Are these
Right now
Aquí

I've come to see
That to me
You'll still be there
Like a star from afar
Even if distant and gone
Your light will reach me
From the past
Its luminosity will last
As I hope to be
A star for others
Like you've been for me

Written by José González after hearing the news about Pepe.

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We'd like to acknowledge all the community-based organizations that have been a part of this work. We do not include all individuals as authors to preserve their confidentiality, but each and every one of the community-based organizations and community leaders who participated in the research have been key to the success of the work. Thank you!

This is a guide to working in underserved communities created through the research of community-based organizations across the U.S.

Please, do not share or reproduce without permission.

At right, La Joven Guardia del Teatro performed The Two Nightingales through a collaboration with Celebrate Urban Birds, a Cornell Lab of Ornithology citizen-science project. Photo by Marilú López Fretts.

We would appreciate your feedback!

Please let us know what you think of this workbook.

What part of the workbook did you find most useful or least useful? Was it approachable? Why or why not? Who do you think is the intended audience? Is there anything you would like to see that was not included? Do you think people would use it?

Please email your feedback to Marilú López Fretts at marilu@cornell.edu

Thank you!