Voces de Esperanza
Practices evaluation report
for the period of
March – December 2024

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Acknowledgments

Background

Voces de esperanza / Voices of Hope: An Exhibit and Framework for Talking about Climate Change (Voces) is a project funded by the National Science Foundation (NSF) and the Spencer Foundation. *Voces* aims to broaden participation in climate conversations and action through iterative development of an exhibit experience created to study content and design strategies for Latine audiences. In particular, Voces aims to ensure Latine(x/o) community voices are central and community members act as co-creators throughout the process. Using a community-based participatory, culturally and linguistically-specific (Spanish/English) approach in the project design and evaluation, Oregon Museum of Science and Industry (OMSI) staff co-led the project with AB Cultural Drivers (ABCD) and Latine audiences through a Colaborativo Comunitario/Community Collaborative (Colaborativo).

Through the collaboration with community partner, Adelante Mujeres, a community-based organization located in Forest Grove, Oregon, the project engaged Latine audiences in the co-creation of exhibit experiences, evaluation, and reflection and the prologue to a framework of practices and exhibit strategies that support the focal audience's skills in having conversations about climate change, actions, and solutions in their communities and everyday lives (Herrán et al., 2025). As such, the Colaborativo was led by parents from Adelante Mujeres' leadership and climate action programs. Grounded in community-based participation, activities by this group included co-planning, implementing, making decisions, and interpreting evaluation activities throughout the project. In particular and regarding the practices evaluation, it was expected that the Colaborativo would lead the selection of expected outcomes and activities, and contribute to data insights, along with project team members, to inform project processes and practices with regard to equity and belonging.

Objective

The objective of this evaluation is to inform and monitor the ways and extent the project practices realize intended and unanticipated outcomes as described in the project logic model that was presented in the project proposal (see Appendix A). The present report provides insight and tracks the progress made in the first calendar year of the project from March 2024 until December 2024. This report also identifies gaps and opportunities to grow practices that foster the desired outcomes. When referring to this evaluation strand, the word practice or practices will be used in this report to point at the ways in which *Voces de Esperanza* (Voces) team members supported and responded to the process through the project activities.

This report is an initial step in organizing the ways in which the project team articulated their practices and responsiveness in service of the outcomes included in the proposal logic model (see Appendix A and the section below, Evaluation goal). OMSI evaluation staff, in their role as project core team members and co-lead in the evaluation activities, led and wrote this report in communication with project team members from ABCD, OMSI, and Adelante Mujeres with the goal of suggesting a way to present the initial theory of action and documenting progress and areas for growth regarding the project team practices in 2024. This is also a means for the Colaborativo members and the other team members to view evidence that could allow them to refine and improve evaluation activities, project outcomes and project practices.

Focus and frequency

The focus of this report is to review evidence gathered about how project team participants perceived or exercised particular Voces project practices intended to broaden public participation in climate change conversations. Of particular interest are the ways in which the Colaborativo members and Adelante Mujeres staff perceive that the project's practices supported their belonging, leadership role, and ability to influence the project. Since no data were collected from OMSI and ABCD staff with regard to how project practices influenced their demonstrated outcomes (see Appendix A logic model), the angle on this report leans more towards the Colaborativo outcomes.

The activities that informed this report are situated in the first calendar year of the project (March – December 2024). During that time frame, an aspiration that aligned with the co-leading and co-creating is related to a collective identity. To foster an atmosphere in which many of the members could co-lead and influence the project processes and deliverables while also getting acquainted, this time was used to plan and lay the groundwork for activities. It is expected that future reports for this strand will be produced twice a year and include reflections, feedback and suggestions from the Colaborativo members and Adelante Mujeres staff, as well as ABCD and OMSI staff.

Evaluation goal

The objective of this report is to document and keep track of the progress and areas of improvement in relation to the project practices of the Colaborativo members and Adelante Mujeres staff during two phases:
- The planning period from January to March 2024 (prior to Colaborativo involvement)

- The planning and the Colaborativo sessions (including activities such as the Family Science Night and exhibit formative data collection) from March to December 2024

During the second aforementioned time frame, the evaluation goal was to track the ways by which the Colaborativo members, including Adelante Mujeres staff, report on their:
- Sense of belonging in the project and informal STEM education
- Opportunities to practice leadership skills in the project and informal STEM education
- Influence on project direction through use of their voices/experiences
- Unanticipated outcomes

Theory of action

Emerging from the initial project logic model outcomes (see Appendix A) and emergent findings from the data, OMSI evaluation staff drafted a theory of action to begin monitoring particular project practices, The intent was for the theory of action to guide future evaluation questions and approaches for gathering, analyzing, and interpreting information from the project partners (i.e the Colaborativo and staff from Adelante Mujeres, ABCD and OMSI). As such, the following theory of action and framework are draft versions intended to inform the project team members' practices. They serve as documentation of the thinking about the evaluation at this time in the project and are by no means intended as definitive illustrations of the project practices.

The following two sentences represent the draft theory of action that guided this reporting cycle and supported the creation of the practice evaluation framework.

- Project team members learn together about co-leading and co-creating through continuous improvement of practices.

- If there are ways to improve often (continuous improvement of the practices), then most of the team members will feel they belong and can contribute, co-lead, and influence the project.

Initial Voces *Practices Framework*

Based on the theory of action, evaluation goals, and outcomes presented in the logic model, a Practices Framework was developed. This section of the report describes the data and concepts that inform the Framework.

Milestones for each project year
 Inspired by material about fostering a "we culture" in *Leading in a Multicultural Age* (Bordas, J., 2012), this part of the framework suggests milestones where each milestone defines a chapter of a story the Voces team might hope to tell across the span of the project. That is, the team might aspire for a story that suggests that the project practices initially help foster a collective identity, then build upon that to share a spirit of generosity among team members, which grows to work together for a common good, culminating in their commitment and a shared feeling of gratitude for reaching their milestones together (Figure 1).

Creating and evolving project practices:	I to We: Fostering collective identity	Mi casa es su casa: A spirit of generosity	Working for the common good	Achieving the commitment and sharing gratitude
	• Welcoming environment • Setting up for co-leading and collaborating			
	2024	2025	2026	2027

Figure 1: Project milestones by year in the form of a story that the project team might aspire to tell at the end of the project

Categories of project practices
Drawn from data from the Colaborativo and Adelante Mujeres staff (Table 2), this section includes three categories of practices exercised by ABCD and OMSI staff. Conversations with project staff suggest that some of the practices could be categorized as "outputs," meaning they can be described as part of typical practices in the form of delivery and reported experience (e.g. providing snacks at meetings, having name tags, including introductions). Another category of practices, "responsive," emerged in the learning through team input and collaboration. A third category of practices, "opportunities," represents the meaning evaluators inferred from the data that the practices in this category might contribute to positive outcomes if the team exercised them.

The categories of practices used in the Voces project, as illustrated in Figure 2, are intended to be reviewed, updated, and defined as the team refines their practices and updates the intended outcomes. This table is one of the ways team members can envision how it might look as the project progresses.

Outcomes	Practice outputs observed in the data	Practice responsiveness observed in the data	Opportunities for additional practice responsiveness observed in the data
Belonging			
Leadership			
Influence			
Popular education			
Unanticipated			

Figure 2. A review of the data in the documentation suggested a relationship between outcomes and the practice categories of outputs, responsiveness, and opportunities for additional practice responsiveness. This is an illustration of a data table structure evaluators inferred from this relationship. Because this table is a sample, it is intentionally blank. Please see Tables 1, 2, 3, and 4 in the results section for data.

Creating spaces for co-leading

The planning period from January to February 2024, allowed project partners (Adelante Mujeres, ABCD and OMSI staff) to align and revise the project goals, outcomes, and timelines, as well as to assign specific team members to the project. For example, in the case of Adelante Mujeres, two staff members were assigned to represent this partner organization. As such their role included recruiting the Colaborativo team members, co-leading the planning for the Colaborativo sessions and project activities, recommending best practices and approaches that resonate with the Colaborativo and the Latine community members, and providing recommendations in relation to project outcomes, content, and activities.

During this period, ABCD, Adelante Mujeres, and some OMSI staff led the planning, content creation, and practices for what the project team referred to as the Colaborativo sessions. These were 3–hour meetings that occurred once a month. The planning for these sessions included the co-creation of the milestones (timeline), agenda, presentations, and ensuring the content and activities were in Spanish. This included ensuring the content was appropriately translated into English and presented in both Spanish and English.

Spanish language speaking and writing were prioritized in service of the Colaborativo. This was evident in all Colaborativo sessions that were conducted, presented and discussed in Spanish. In the cases where staff who only spoke English created materials in that

language, translations into Spanish were done to ensure the Colaborativo understood the content of what was presented. Interpreters were always present to ensure communication was bridged between those who only spoke Spanish and those who only spoke English. In this way, the agenda, presentations and activities were accessible in both Spanish and English.

The content, language, and activities were co-created in such a way that ABCD and OMSI staff envisioned opportunities for the Colaborativo to co-lead and meet the practices outcomes. Opportunities for co-leading were expressed by Colaborativo members during the first meeting on March 2, 2024. At the time, they expressed their interest in the role of education about climate change.

"El enfoque y la justificación que me motiva es la posibilidad de aportar a los niños y jóvenes de cómo sensibilizarlos acerca del cambio climático."
(*trans.* The approach and justification that motivates me is the possibility of providing children and young people with how to raise their awareness about climate change.*)*

"Tenemos que bajar el conocimiento a todas las personas que puedan servirles. Los niños son los que van a tener que hacer el cambio – en referente al cambio climático- la situación es que nosotros tenemos que educar a esos niños para que hagan el cambio."
(*trans.* We have to bring knowledge to everyone that can make use of it. Children are the ones who are going to have to make the change – in relation to climate change – the situation is that we have to educate these children to make the change).

The Colaborativo sessions and activities were co-planned by ABCD staff in collaboration with key OMSI and Adelante Mujeres staff in ways that included five major strands that were interweaved in support of the project goals and deliverables. The processes and practices during 2024 were influenced by the strands and the need to have a shared understanding of the strands:

- Climate change conversations and content
- Exhibition and Voces prototypes: content, accessibility, interactive components, labels, images
- Voces exhibit framework
- Evaluation: front-end and formative
- Popular education and dinamicas (dynamic icebreaker activities)

The ways in which ABCD and OMSI staff planned these strands' content, cadence, and activities, influenced the practices outcomes of leadership, belonging, and influence for the Colaborativo members. In 2024, a total of 9 sessions in the form of interactive 3–hour

meetings were planned and one in the form of the Family Science Night (FSN) event at OMSI. Overall, the role of Adelante Mujeres staff was to contribute to the planning content, provide feedback, and provide recommendations when the Colaborativo members were part of events or specific activities.

Methods

The methods used in this report are qualitative and emergent. The data sources were documented through various methods in the project and in collaboration with various project team members. Data sources for this report are summarized in Table 1.

Data sources

Data for this report were collected from four primary sources: written notes left by the Colaborativo members (in Spanish), notes taken by ABCD staff after group reflective conversations which included Adelante Mujeres and OMSI staff (primarily in English), and Colaborativo sessions minutes taken from the discussions and activities that occurred in those sessions (primarily in Spanish). Notes were written in the original language that was spoken. The minutes were later translated into English to ensure that all the team members could understand the content. A fifth data source, included an OMSI staff who was nominated by ABCD and OMSI staff at the first Colaborativio meeting, whose role was to be a person that could be available for the partner and Colaborativo members to provide feedback and suggestions (see last row in the table 1). During the first year this data source did not report any data and feedback, and such was not included in the report. A data sources summary is presented in Table 1 below.

Table 1. Summary of data sources by participants and purpose

	Source	Participants	Purpose	Dates
Facilitators' debriefs and reflections	Notes from a group conversation in a google doc (primarily in English)	Adelante Mujeres, ABCD, and OMSI staff	To document areas that went well, areas to improve iteratively	After each of the nine monthly Colaborativo sessions (March–December 2024)

Reflections after a specific event: FSN	Notes from a group conversation in a google doc (primarily in English)	Adelante Mujeres, ABCD, and OMSI staff	To document areas that went well, areas to improve, and changes for a future event	November 22, 2024
Comment box	Written notes in google doc (primarily in Spanish)	Colaborativo members	To document, provide feedback and suggestions about the process, content, and logistics	About 13 comments on three dates were received: March 2, April 6, and July 13, 2024
Colaborativo sessions agenda notes	Notes from group presentations, conversations, and other activities written in the original language that was spoken and later translated (Spanish and English)	Colaborativo members Adelante Mujeres, ABCD, and OMSI staff	To document conversations, reflections, and insights during each Colaborativo session	During and after each of the nine monthly Colaborativo sessions (March–December 2024)
Check-in with designated staff	OMSI staff nominated at the first Colaborativo meeting in March 2024	Colaborativo members	To document any feedback	No evidence this happened

Informed consent

During the first Colaborativo session on March 2, 2024 that included the Colaborativo members, Adelante Mujeres staff, and ABCD staff, each person received two forms: 1) a written consent form that explained the purpose of the project and evaluation studies, and 2) a media release form that granted the Voces project and OMSI the rights to conduct media recording. Both the informed consent and media release forms were offered in Spanish and English, providing participants the option to choose and sign the form in their preferred language. In the case of OMSI staff who participated in Voces, they did not receive the media release form as they have already waived this release through their status

as OMSI employees and no evaluation data was collected from them in 2024. Any media recordings gathered during 2024, were documentation for presenting context on the process and not as data. Before OMSI staff are asked to respond to specific data collection questions, they will be asked if they would like to provide verbal and/or written consent, as appropriate.

Analysis approaches

Data (notes) were analyzed using thematic analysis, allowing OMSI evaluation staff to identify themes and patterns associated with the overarching outcomes of this evaluation strand. The notes from the comment box, reflections, and meetings were copied into a Google sheet and analyzed in the original language in which they were written (Spanish and/or English).

Considerations and limitations

The primary weakness in the present study is that no direct (explicit) feedback or insights were requested or captured from the Colaborativo or staff from Adelante Mujeres, ABCD, or OMSI in relation to the expected outcomes for this practice evaluation report. Moving forward, insights from the Colaborativo members (including Adelante Mujeres staff) about how project practices might relate to their sense of belonging, leadership, and influence on the project need to be formally gathered. Also there is the need to gather data from ABCD and OMSI staff regarding ways in which they learned about practices that foster belonging, equity for project partners and their ability to use popular education for exhibit development processes.

Results

The results for this report are organized by expected outcomes and were written using data generated between March and December of 2024. During this period Voces project team members moved from the planning phase to an actionable phase, working towards the project deliverables while fostering opportunities for the Colaborativo members to co-lead and influence the project content deliverables and exhibit evaluation activities. During this time, ABCD, OMSI staff, and Adelante Mujeres staff met after each session or main activity to debrief and reflect about the content and responsive tactics that could be implemented for the following session and activity.

Sense of belonging

A sense of belonging was identified in the project proposal as important for broadening participation in climate education and conversations. The Othering & Belonging Institute (OBI) document titled, *Principles for the climate crisis* (2022), states:

> *Belonging means more than having just access, being seen, or feeling included. It means that every member of society has a meaningful voice, that their well-being is cared for, and that they have the opportunity to participate in the design of political, social, economic and cultural structures. Belonging includes the right to both contribute to, and make demands upon, society and political institutions"* (pp. 5 and 6).

This definition guided the ways in which data—feedback provided by the Colaborativo members (see Table 1) and Adelante Mujeres staff (see Table 1)—were coded from the data sources as a sense of belonging that was fostered through project processes and practices. The coding from these data suggest the project's community-based participatory approach fostered a welcoming atmosphere and invited Colaborativo members to share insights, participate, and contribute (see summary in Table 2 below).

Table 2. Practices associated with the construct belonging in the categories of outputs, responsiveness and opportunities for additional practice responsiveness as observed in the data

Belonging	Practice outputs observed in the data	Practice responsiveness observed in the data	Opportunities for additional practice responsiveness observed in the data
Colaborativo and Adelante Mujeres staff practices	–Community agreements –Expressed desire for an activity beyond the planned ones, such as suggesting a field trip –Expressed desire to meet more often in 2025 (at the last session in December 2024)	–Not applicable for the Colaborativo because they were not invited to respond directly to comments or reflections from the other team members **Adelante Mujeres** –Ensuring food and communications were updated –Support with logistics and materials for data collection –Suggested improvements for FSN event	**Adelante Mujeres** –Expressed desire to have more meetings more often to check in and keep momentum going on
ABCD and OMSI staff practices	**with respect to the Colaborativo:** –Staffing with Latine/bilingual team members –Welcoming environment, sharing meals, creating relationships	–Ensuring and troubleshooting issues about how to navigate OMSI space –Welcoming and responding to communications during formative data collection –Proposed planning 3 months ahead for future FSN	–Planning for 2025 includes suggestions from Colaborativo members such as a museum trip, FSN in the summer –Register of improvements for activities at OMSI such as sessions, remedial evaluation, and other logistics

The table above illustrates team practices from the data sources referenced in this report that were coded as having a relationship to the Colaborativo members' sense of belonging. The practices are categorized as outputs, responsiveness, and opportunities for additional practice responsiveness.

Colaborativo members expressed their insights and perspectives through various opportunities during the sessions and activities. One of the members wrote in the comment box that the environment was good to develop their ideas:

"tiene una muy buena organización [el proyecto] con objetivos bien establecidos para realizar en cada reunión, el ambiente es idóneo para desarrollar ideas."

(*trans.* The project is very well organized, with well-established objectives to be carried out in each meeting; the environment is ideal for developing ideas.)

Colaborativo members mentioned their desire to host the sessions in environments other than OMSI or Adelante Mujeres locations as ways to build relationships and a sense of a collective belonging.

"Solo espero podamos ir al Zoo para la próxima reunión y a Seattle para visitar el museo."

(trans. I just hope we can go to the Zoo for the next meeting and to Seattle to visit the museum.)

In 2024, ABCD and OMSI staff could not secure a place for a field trip and Colaborativo session. Adelante Mujeres staff suggested initiating a hike or walk rather than attempting a bigger or longer trip. The recommendation for a longer activity was included in the planning ideas for the next calendar year (see facilitators' debriefs and reflections in Table 2).

Adelante Mujeres staff, in their advocacy for the Colaborativo, through many debriefing and reflection opportunities with ABCD and OMSI staff, shared instances in which the project could have better fostered a sense of belonging and opportunities to improve this outcome in future activities that included the Colaborativo members. Opportunities that fostered a nascent sense of belonging reported by Adelante Mujeres staff included:

- OMSI staff introducing themselves and participating in the sessions and activities
- The logistics during the sessions and data collection that supported team building and a welcoming atmosphere: food, space arrangements, activities to foster a welcoming environment and encourage participation in different group modalities
- Exhibit evaluation activities that were supportive such as experiencing data collection with the Adelante Mujeres staff and OMSI staff, providing identifiers for the members such as tags, buttons, and shirts

The areas for improvement regarding the sense of belonging outcome were explicitly mentioned by Adelante Mujeres staff during the Family Science Night debriefing with ABCD and OMSI staff (see Table 2). The suggestions included planning the event for a

longer timeframe (make the event last more than a couple of hours), so families who visit the museum have time to both explore the Voces prototypes and enjoy the experiences at OMSI. Also, plan this event around spring or summer seasons, so families could also enjoy the areas outside (such as the riverfront) of the OMSI building during that event. Other suggestions from Adelante Mujeres staff and Colaborativo members were expressed during the last session in December 2024. This included their desire to meet more often than once a month in order to keep project momentum as noted by Adelante Mujeres staff in the minutes of that session:

"Tal vez reunirnos cada día. Una combinación de reuniones en persona o virtuales. Esto para trabajar sus ideas ya sea en conjunto o individuales. Pero siempre en equipo."

(trans. Maybe meet every day. A combination of in-person or virtual meetings. This to work on our ideas either together or individually. But always as a team.)

Opportunities to practice leadership skills in the project and informal STEM education

In the project proposal, evidence from prior work was cited that suggested the construct of leadership was important for broadening participation in climate education and conversations. Although the construct of leadership and an explanation of leadership skills are not explicitly defined in any of the project documents, the slide decks shared with and presented to the team members, project advisors, and others refer to a Voces project collaboration model. This model is grounded in the *NISENet community-driven involvement spectrum* (Jackson et al., 2022). This spectrum goes from less shared leadership, to more shared leadership among project collaborators. The spectrum states that "more shared leadership" is a "transformational engagement that includes strong partnership, relationships, community decision making, and suggests the outcome as a deeper sense of ownership and belonging for the community partners." Another document that hints about leadership skills is the Voces document, "*Community agreements for the Colaborativo members*" (see Appendix B) that was reviewed and shared at the first Colaborativo session held in March, 2024. One of the agreements encourages the members to "*Be the change for my community*." This suggests that Colaborativo members are asked to model for their communities. Using and expanding these two definitions, for the purposes of this report, the data coded (from the data sources in Table 1) in a category of "leadership skills" included opportunities for the Colaborativo members to lead presentations and activities, to make and influence decision making, and to actively provide feedback.

The Colaborativo sessions and activities from March to December of 2024 provided opportunities for members to reflect on their expectations with regard to practicing their leadership skills and seek opportunities to tap into their knowledge and experience, thus generating relevant data (see Table 3 for a summary of this output).

"También me interesó sobre cómo educar a la comunidad de una forma clara sencilla pero con soporte científico reales de lo que ocurre con nuestro medio ambiente."

(*trans*. I was also interested in how to educate the community in a clear and simple way but with real scientific support about what is happening with our environment.)

"...Este proyecto nos va ayudar a abogar y aprender y hacer que nuestra voz como Latinos sea importante"

(*trans*. …. This project will help us advocate and learn and make our voice as Latinos important)

In the facilitator debriefing document, ABCD and OMSI staff reflected about the opportunities that fostered the Colaborativo members to exercise their leadership skills. These reflections included the ways in which the Colaborativo members facilitated, led portions of the sessions and activities, and provided candid feedback and recommendations regarding the exhibit content and evaluation activities. For example, the formative evaluation data collection calendar was planned after the data collection training activity, in co-leadership with the Colaborativo members and Adelante Mujeres staff. At that session, Colaborativo members suggested recommendations for the exhibit evaluation instrument's content and layout.

Table 3. Practices associated with the construct of leadership in the categories of outputs, responsiveness and opportunities for additional practice responsiveness as observed in the data

Leadership: co-leading in the Voces project	Practice outputs observed in the data	Practice responsiveness observed in the data	Opportunities for additional practice responsiveness observed in the data
Colaborativo and Adelante Mujeres staff practices	–Co-facilitating, presenting at the sessions –Providing recommendations for evaluation methods, and communications with the community	–No evidence found	–No evidence found beyond Adelante Mujeres staff expressed interest to foster opportunities for the Colaborativo team members leading activities: evaluation, sessions, and others

ABCD and OMSI staff practices	**with respect to the Colaborativo:** –Content, communications, and materials in Spanish –Evaluation: methods, and activities –Community member events, recruitment –Exhibit content and initial framework content	–Reflecting and seeking opportunities for the Colaborativo members to co-lead during the sessions –Inviting to provide their insights and recommendations for: –Exhibit prototypes content –Evaluation approaches in the data collection methods	–Keeping a record of the reflection notes and ways in which the team responded and iterated based on the preferences, suggestions, and guidance provided by the Colaborativo team members –Foster more opportunities to engage the community – potentially led by the Colaborativo

Influence on project direction through use of their voices and experiences

In the project proposal, evidence from prior work was cited that suggested the construct of influence was important for broadening participation in climate education and conversations. This construct complements the other constructs, yet could potentially be conflated with the construct of leadership, therefore it is key to distinguish it for the purposes of this report. As such, this construct of influence will rely on the ways in which the Colaborativo members (and Adelante Mujeres staff) used their voices and experiences to guide the project direction.

Through the sessions and activities, the Colaborativo team members sometimes expressed their feedback regarding project practices and opportunities in which they perceived they could influence the project. This was particularly evident after the second session when one Colaborativo member wrote in the comment box (see Table 4) about the opportunities in which they could influence the project:

"…siento que hemos avanzado en asentar bien la idea del concepto del proyecto, ha quedado más clara para mí, el detalle de dejarnos participar en los comentarios, ideas y aportaciones, espero llevar una idea mejor desarrollada de una propuesta de diseño más concreta."

(*trans.* I feel that we have made progress in establishing the concept of the project; the detail of allowing us to participate in comments, ideas and contributions has become clearer to me. I hope to have a better developed idea of a more concrete design proposal.)

Opportunities for improvement in practices that could foster a sense of influence were mentioned throughout the debriefing sessions and agenda notes (see Table 1 for data sources and Table 4 for a summary on this outcome) based on what was heard from the Colaborativo by ABCD and OMSI staff. Many of these suggestions were addressed in subsequent sessions or activities with the Colaborativo members. These included:

- During at least one of the Colaborativo sessions, members gave feedback for each of the five Voces exhibit prototypes, this included expressing their expectations and what could work better from their perspective. An example of their feedback that influenced the exhibit is the suggestion to make the *Climate Action* component activity and questions clearer.

- Colaborativo's desire to facilitate, lead, and actively participate in the sessions, activities and meetings influenced planning and time allocation for ABCD and OMSI staff. Over the course of the nine sessions some activities were adjusted because they required more time than planned. In this case, the project team was responsive to the Colaborativo's feedback to be included and lead some portions of the activities. However, balancing content with staying on schedule was a struggle for ABCD and OMSI staff for some sessions and events. For example, some activities that would have benefited from having a better time management or time allocation that were mentioned by the Colaborativo members and Adelante Mujeres included:
  - Popular education activities from OMSI staff
  - The session with the Utah advisors had many challenges including gathering information ahead of time for the ice breaker.

Table 4. Practices associated with the construct of influence in the categories of outputs, responsiveness, and opportunities for additional practice responsiveness as observed in the data

Influence	Practice outputs observed in the data	Practice responsiveness observed in the data	Opportunities for additional practice responsiveness observed in the data
Colaborativo and Adelante Mujeres staff practices	–Shared out their recommendations for prototypes and other areas in the project	–No evidence found.	**Adelante Mujeres** –Suggested the Colaborativo members see and experience the latest version of the prototypes in 2025
ABCD and OMSI staff practices	**with respect to the Colaborativo:** –Community agreements –Staffing with Latine/bilingual team members	**ABCD and OMSI staff:** –Include Colaborativo and participants recommendations in the Voces prototype iteration. – Refine and pivot activities when time is a constraint	**ABCD and OMSI staff:** – Planning sessions and activities with better time management

Integration of popular education

In the project proposal, evidence from prior work was cited that suggested the approach of popular education was important for broadening participation in climate education and conversations. Popular education, including participatory evaluation approaches, are approaches to incorporate peer learning opportunities and as such are intended to be used through the Voces project to develop team building, improve practices, and as an evaluation perspective that situates all members of the project and participants as peers who hold valuable knowledge and experiences. Popular education challenges power differences about who holds the knowledge and is in support of the community's knowledge and strengths, fostering mutual learning between researchers and community members (Goodman et al., 2017). This outcome was intended to be fostered by the ABCD and OMSI staff as an approach used in various project strands including exhibit development, meeting facilitation, and evaluation activities (see Appendix A). As such and recognizing that OMSI staff members are at various levels of understanding and using this approach, an experienced OMSI staff facilitated a formal presentation and activities during

one of the Colaborativo sessions (see Table 1 for data source: agenda note). This session included two Colaborativo members who shared verbal presentations on popular education based on their research and experiential knowledge. These were presented and shared before OMSI staff facilitated activities. The popular education overview, presented by OMSI staff, was well received by the Colaborativo members:

"…Era muy interesante el juego junto con la educación popular integral."

(*trans*. the game was very interesting along with comprehensive popular education)

"El tema de la educación popular me encantó y abrió mucho mi expectativa."

(*trans.* The topic of popular education fascinated me and raised my expectations)

Table 5. Practices associated with the construct of popular education in the categories of outputs, responsiveness and opportunities for additional practice responsiveness as observed in the data

Popular education	Practice outputs observed in the data	Practice responsiveness observed in the data	Opportunities for additional practice responsiveness observed in the data
Colaborativo and Adelante Mujeres staff practices	–Two Colaborativo members shared verbal presentations on popular education based on their research and experience. – Ideation of activities that could be used for evaluating exhibit prototypes	–No evidence found	**–**The approach resonated and they expressed their desire to have more opportunities to practice, engage in this approach
ABCD and OMSI staff practices	**ABCD and OMSI staff with respect to the Colaborativo:** -Sessions ice breakers -One session dedicated to this approach led by an OMSI staff member	**ABCD and OMSI staff:** –Adelante Mujeres staff ideating and offering a variety of ice breakers as 'dinamicas' (interactive activities) –OMSI staff intended use as a formative evaluation approach	**ABCD and OMSI staff:** **–**Different levels of experience, comfort and opportunities to see how it fits in the development and interactives of the prototypes

Overall findings

Findings in this report suggest that the Voces project practices fostered opportunities for the Colaborativo members to grow a sense of belonging, exercise their leadership skills, and influence the project, and have a shared understanding of popular education as a promising approach throughout the project. However, there was no evidence found regarding the extent by which the outcomes were met, since no measures of success were developed collectively by all the project team members. Furthermore, the Colaborativo sessions and other project activities did not include any formal way to close feedback loops and document the progress made on the practices as the project advanced.

Similarly, although ABCD and a few OMSI staff provided information in the facilitator notes regarding the outcomes expected for ABCD and OMSI staff, the majority of OMSI staff who were involved at various times of the project were not offered ways to provide feedback that could be documented. The outcomes for this audience, such as fostering a sense of belonging and equity and use of popular education, need to be more formally documented in ways that elicit a shared understanding with the project partners, spell out what success looks like for the entire Voces team, and suggest the actions or responsiveness practices that could support the team to overcome challenges.

Earlier in this report, in the section on Theory of Action, an idea was presented to think of each year of the Voces project in terms of a story involving the development of a "we culture" and multicultural leadership in climate education. The journey in this story suggests that the first year of the project (2024) would foster a sense of collective identity among project members. If this journey appeals to the project team members and they want to foster a collective identity, evidence in this report was not conclusive to support that aspiration. Some evidence was identified from Colaborativo members and Adelante Mujeres staff that suggests strides were made towards that goal in the form of their sense of belonging and leadership roles. However, more evidence is needed that 1) includes more team members' perspectives and 2) directly addresses project members' aspirations for outcomes and their theory of action for achieving them.

Considerations and future updates

The outcomes presented in the project proposal's logic model are constructs that guide the entire Voces project practices, as such it is key that moving forward ABCD and OMSI staff agree upon definitions that are appropriate for this project. This report suggests some definitions (from the proposal and other documents) that project members could adopt or adapt based on further literature review, the use of the constructs in project

documents, and in particular, project participants' preferences and experience in this context.

The role of Adelante Mujeres staff did not have enough clarity in terms of where it fit for the practices in the project processes. Adelante Mujeres staff acts as co-lead and is in charge of coordinating closely with ABCD staff the Colaborativo activities. Future efforts would benefit from clarity in the ways in which Adelante Mujeres staff role aligns with the practices outcomes.

Based on the report findings and the logic model outcomes for this practice evaluation strand, OMSI staff propose to build upon this Voces Practice Framework (and/or theory of action) to organize, track and evolve the practices of this project (see Figure 3). The ultimate impact of the practices the Voces team hopes to achieve by the end of the project is stated in the circle at the right side that states "broadening participation in climate conversations." This impact is aligned with the goal that project participants and team members have the skills for climate change conversations, in particular, for Latine community members (both Spanish- and English-speaking). The framework proposes to capture the journey story and its evolution (see grid on the top right in Figure 3) as well as the practices outcomes that contribute to that journey (see practice outcomes on each row).

Proposed Voces Practices Framework — Practices evolve based on evidence

I to We: Fostering collective identity	Mi casa es su casa: A spirit of generosity	Working for the common good	Gratitude and making the commitment
• Welcoming environment • Setting-up for co-leading and collaboration 2024	2025	2026	2027

Practice outcomes	Practice outputs	Practice responsiveness	Opportunities for additional practice responsiveness
Sense of Belonging			
Leadership			
Influence			
Popular Education			
Unanticipated			

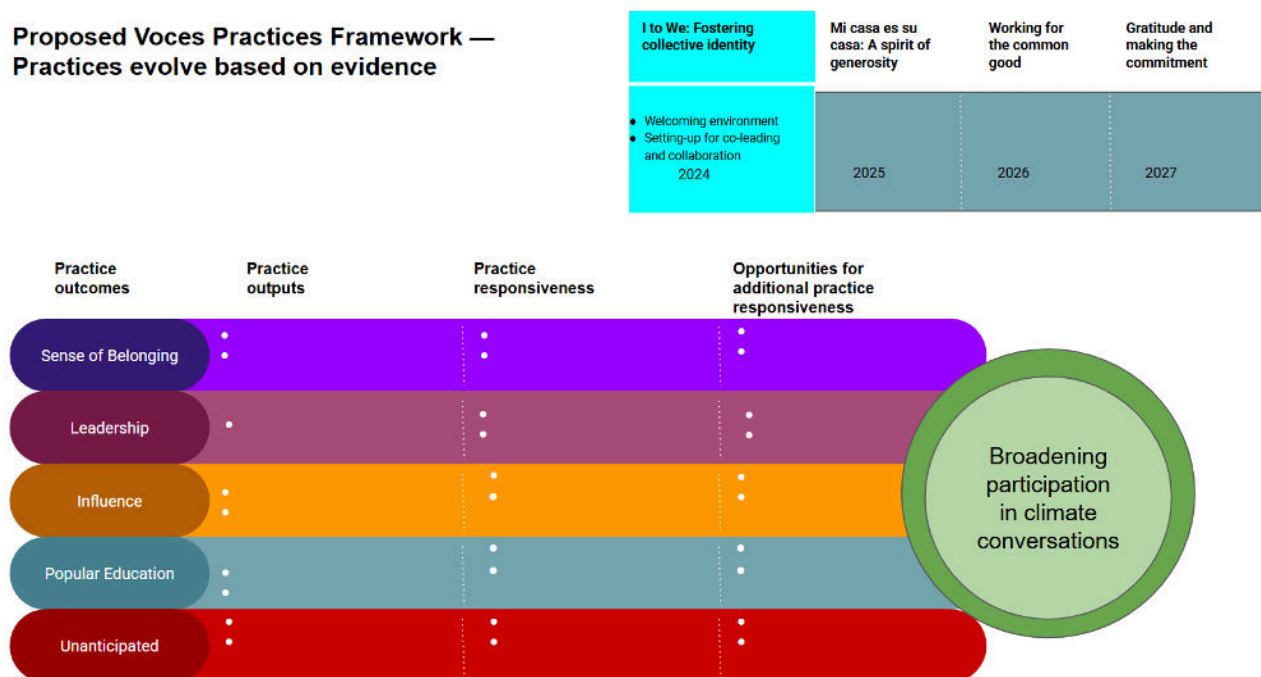Broadening participation in climate conversations

Figure 3. A draft illustration of the proposed Voces Practices Framework

Furthermore, by using a framework like that illustrated in Figure 3, it is possible to document how practices might emerge as effective for fostering the desired outcomes in the Voces projects. At the same time, this framework will benefit from a review by the Colaborativo members and Adelante Mujeres staff to ensure that this kind of illustration can capture the desired and unexpected outcomes while also being a product that is easy to read, navigate, and collectively discuss adjustments moving forward.

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Appendix A: Practice logic model

From the NSF proposal

Culturally Responsive Evaluation: Trustworthiness of results will be founded in culturally-responsive practices in which the *Colaborativo* helps lead all aspects of evaluation, working with ABCD and OMSI staff. The *Colaborativo* will help co-construct project deliverables through iterative processes to *generate, review, and improve* deliverables with families, partners, advisors, project team members, and others, as appropriate. The *Colaborativo* will focus on reducing threats to multi-cultural validity of evaluation (Kirkhart and Hopson, 2010, Garibay and Teasdale, 2019).

Scope of Evaluation: Project Practices	Outcomes for Project Team Members*
Objective: Inform & monitor ways & extent the project practices realize intended & unanticipated outcomes **Frequency and Focus** Twice per year throughout project: Focus on learning how particular practices for equity and belonging in the project process might foster broadened participation in exhibit	*Colaborativo* members report: ● Sense of belonging in the project and informal STEM education ● Opportunities to practice leadership skills in the project and informal STEM education ● Influence on project direction through use of their voices/experiences OMSI and ABCD staff report: ● Improved understanding for practices that foster belonging and equity with community partners and members ● Improved understanding and abilities to use popular education approaches for exhibit development processes

*Outcomes and indicators will be selected with the *Colaborativo*; those listed here are initial ideas.

Appendix B: Community agreements

Acuerdos Comunitarios del Colaborativo	Community Agreements of the Collaborative
Valores *Estos valores también se aplican al grupo de WhatsApp. Se podrán revisar los valores de grupo constantemente para identificar si es necesario añadir más a la lista.* • Solidaridad • Comunicación • Participación • Confianza • Amabilidad • Perseverancia • Valentía • Libertad • Igualdad • Inclusión • Amor **Acuerdos** • Apoyar • Ayudar • Compartir • Ser el cambio para mi comunidad • Compromiso con el programa • Respeto a opiniones diferentes • Escuchar / guardar silencio • Silenciar el teléfono • Confidencialidad • Puntualidad **Acuerdos adicionales para el grupo de WhatsApp** • Es una plataforma para compartir recursos • Ser consciente de la hora en la que se manden los mensajes (no muy noche) • Horario de actividad del grupo: (proponer horario) • Evitar mensajes religiosos o políticos • Evitar mensajes muy personales • Tratar de centrarse en los recursos, acciones, noticias o temas relacionados con inmigración	**Values** *These values also apply to the WhatsApp group. The group's values are subject to ongoing review to determine if additions to the list are necessary.* • Solidarity • Communication • Participation • Trust • Kindness • Perseverance • Courage • Freedom • Equality • Inclusion • Love **Agreements** • Support • Help • Share • Be the change for my community • Commitment to the program • Respect for different opinions • Listen / remain silent • Silence the phone • Confidentiality • Punctuality **Additional Agreements for the WhatsApp Group** • It is a platform for sharing resources • Be mindful of the time messages are sent (not too late) • Group activity hours: (to be proposed) • Avoid religious or political messages • Avoid very personal messages • Try to focus on resources, actions, news, or topics related to immigration