

**“SOULS OF SCIENCE”
PERSONAL NARRATIVE WORKSHOP**

WORKSHOP COMMUNICATIONS PLAN

Center for Science Communication at Colorado State University

A workshop developed by the Center for Science Communication at Colorado State University to assist researchers in developing personal narratives to support science communication engagement. Developed in association with Field Peterson in partial fulfillment for the degree of Master of Science at Colorado State University.



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ABSTRACT

As science communication evolves through saturated digital media spaces, more opportunities arise to explore new methods of promoting trust and dialogues between scientists and the public. Encouraging scientists to visually communicate their personal narratives as a precursor to sharing research could encourage engagement and provide mutual ground for connections to form. This project offers a science communication workshop to help participating scientists engage in the process of externalizing and sharing their personal narratives to support ongoing communication approaches for their specific disciplines and audiences. An analysis of existing literature and underlying principles associated with visual communication, personal narratives, and trust-building informs the contents of the workshop, alongside external research-driven recommendations to promote engagement in workshop settings. The project delivers a suite of workshop tools and materials, including lessons and exercises to promote learning and engagement, alongside workshop facilitation guidance, to support the workshops and trainings for the Center for Science Communication.

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PROJECT BACKGROUND

Overview

In facing a global climate crisis, novel technological advancements, and a recent pandemic, it is critical to examine current science communication strategies and explore new opportunities to connect research and audiences on a global scale. Dialogues about science are increasingly occurring in online spaces, such as social media (Brossard, 2013; Rigutto, 2017; Su et al., 2015), shaping how people discuss ideas, determine truths, and make decisions. Along with numerous opportunities come immense challenges, demanding innovative solutions and practical applications to foster scientific learning for different audiences.

Science communication is the process of distilling research to wide audiences to promote learning and knowledge-sharing (Fischhoff, 2018), paralleled by a range of research into the study of how such communication can be optimized across disciplines at theoretical and practical levels. Research exploring the role of scientists engaging in communications roles suggests that there may be opportunities to allow scientists to share their perspective with audiences to establish dialogues (Baram-Tsabari & Lewenstein, 2017; Bik and Goldstein, 2013; Langan et al., 2019; Weingart and Guenther, 2016).

Promoting public trust in science is a valuable endeavor (Bates et al., 2010; Huber et al., 2019; Liang et al., 2014) though challenging due to the complexities of relationships, specific contextual details, and misinformation (Pulido et al., 2020; Vraga and Bode, 2017). Still, promoting trust between individual scientists and public audiences may provide opportunities for trust and research (Sbaffi and Rowley, 2017).

Narratives, as historic and inherently human concepts, are immensely powerful tools to connect with people and share information (Davies et al., 2019; Fisher, 1985; Green, 2008; Jones and Anderson Crow, 2017). Though applications for narrative in science communication are well explored, some limitations arise when using them to convey research. However, scientists sharing their personal narratives could promote dialogues with audiences as a precursor to sharing research topics (Muindi et al., 2020; Neeley et al., 2020). With modern reliance on digital media platforms, visual communication is a vital tool and can be used to represent narratives through imagery (Adami and Jewitt, 2016; Bock, 2017; Nie, 2017; Russmann and Svensson, 2017). See the **References** document for the complete list of sources.

Project Background and Scope

This project focuses on developing a workshop with lessons and exercises informed by existing literature surrounding science communication, the role of scientists, personal narratives, visuals, and trust as a communication device. These subjects are all unique areas of research, each with their own bodies of literature across, and merging, different disciplines. This project seeks to contribute to effective science communication techniques by focusing on a specific strategy that is transferable across different contexts—teaching scientists how to develop and share their personal narratives. To engage participants with these subjects, the project synthesizes themes into a practical, applicable workshop setting to foster idea-sharing and collaboration.

The project addresses the relationship between scientists and public audiences, then equips scientists with tools to engage as communicators and representatives. Scientists, also referred to as researchers, are academic-facing topic experts who are actively publishing and representing research within their specific field(s) of study. Public audiences include individuals

with a range of scientific education, exposure or background knowledge, or inter-disciplinary perspectives, particularly when compared to scientists. These group descriptions are generalized due to the various fields of scientific research, as well as the unique backgrounds and experiences of both scientists and public audiences. This workshop is not contingent on any single subject area or group of people—instead it operates on themes that individual scientists can adapt to their needs and specific target audience. Group engagement can be enhanced with diversity of backgrounds among participants who can share perspectives and experiences. When the workshop is scheduled, facilitators will need to communicate closely with research groups and optimize their experience according to their goals. The facilitation guidance provided in this project will help to suggest ways to address the structure and optimize the content presentation.

This project explores the idea of scientists sharing their perspectives to promote open, honest communication. Encouraging scientists to be public communicators of their own research, or even representatives of larger fields of science, is a complex idea that deserves longer discussion. For the purposes of this project, the notion of scientists acting as communicators suggests that they adopt a mentality of being a representative of their specific discipline of work (Weingart & Guenther, 2016). Some scientists may lack the training or interest in communicating in this capacity, but the role outlined in this project is not a communicator in the technical sense, nor does it require as much technical training as explicit communications careers. Instead, this role involves personal representation to offer public audiences a more inclusive glimpse into the life, mind, and presence of a scientist before conversations of scientific research occur between them. In this way, the person behind the research becomes as important as the work itself, engaging on the level of peer-to-peer conversation through honest communication, such as the use of personal narratives. While many communication practices can require hours of dedication

and practice, this workshop offers participants a chance to explore and apply these approaches and embrace roles as science communicators. Participants do not need to be accomplished science communicators, merely curious and open-minded about representing themselves in their own fields of research.

Center for Science Communication

The Center for Science Communication (CSC) is an emerging hub for interdisciplinary science communication within the Department of Journalism and Media Communication at Colorado State University (CSU). The CSC aims to foster better communication outcomes in pursuit of socially sustainable agricultural, environmental, and health systems by focusing on research, teaching, mentoring, training, and outreach to a range of audiences. The CSC is currently building a menu of science communication training workshops to offer to research groups within and outside of the CSU community. Expanding upon prior training collaborations with the Institute for Research in the Social Sciences (IRISS), the CSC can continue to connect with specific research groups that may benefit from these training workshops. The workshop outlined in this project provides an approachable, broadly applicable topic to offer immersive training in a time-sensitive area of science communication. Investing in science communication trainings aligns the CSC with CSU's land-grant research goals of distilling scientific research and promoting knowledge-sharing while empowering local stakeholders.

Related Organizations

Several organizations have applied personal narratives to science communication by providing a platform for scientists to share stories about their experiences. Stony Brook University's [Alan Alda Center for Communicating Science](#) draws on Alda's acting background by hosting

immersive, improvisation training sessions to engage scientists. [The Story Collider](#) hosts speaking events to provide space for scientists to share their personal narratives with the public, supported directly by research from the team, building on narrative engagement and transparency. [The Life of Science](#) explores science in India alongside a strong focus on diversity and inclusion through a multimedia lens. The [People Behind the Science](#) podcast gives space for scientists to share their perspectives, provide advice, and share stories. [Taste of Science](#) hosts networking events (with food!) across the United States to connect scientists and promote science accessibility. These organizations inspire the application of this topic in a workshop setting where academic perspectives can intersect with personal stories of science. Providing researchers with the opportunity to engage, explore, and discuss new ideas with their peers can provide a positive and supportive environment to implement effective science communication strategies and support future research.

PROJECT OBJECTIVES

Research Objectives

What role do scientists play in the process of communicating science and what is the expectation for them to engage as communicators or representatives of science? This question is frequent in scholarly discussion of science communication and informs the basis for the concepts applied in this project. How can tools and trainings help scientists to engage as effective communicators? Rather than casting a wide net of potential tools, this workshop aims to share a specific approach that scientists can apply to their practices, supported by contextual information to understand the

scope of current literature. This topic may create a sense of vulnerability among participants, and thus requires careful consideration of how to foster a comfortable environment. Further answers to these questions are informed by the supporting exploration of scholarly research and workshop structure.

Workshop Objectives

Given the complex dynamic of trust between scientists and the public, scientists can engage as authentic, trusted actors in otherwise saturated and complex digital media environments. This project's primary objective is to offer a training workshop to help researchers visually communicate their personal narratives for their target audiences, particularly in hopes of connecting the two groups. This includes all components of a successful workshop with a format that promotes a comfortable environment for participants, creates informative materials for this specific topic, and contributes to the larger field of science communication by providing tools to address trust between scientists and the public. **In sum, it is a chance for scientists to expand their exposure to novel communication approaches and share their personal experiences that they can post on social media or digital platforms to engage with their target audiences.**

FACILITATION PROCESS

Project Management

Leadership and organization for this workshop will be led by the Center for Science Communication alongside available faculty and staff. As the CSC Director and advisor of this project, Jaime Jacobsen can act as an intermediary, advocating for the best interests of the Center and the workshop production alike.

When the workshop is being piloted, Jaime can oversee the process of finding facilitators to lead content delivery. Ideally, facilitators will be individuals with relevant background experience, interest in the topic area, or experience leading workshops. This may include knowledge in science communications, marketing and outreach experience, narrative storytelling, social media, or teaching. The number and arrangement of facilitators is flexible and may be best dictated by those available—prior CSC workshops have succeeded with one primary facilitator who delivers content and engages with participants, while the supporting facilitator monitors for questions, assists with technology, and offers additional insights when needed or experience allows. Graduate Teaching Assistants are also a viable option, especially if they are looking for more exposure to leading workshops. Age and experience are flexible—above all, the facilitators should be prepared to lead and adapt to situations to support participants' learning process. This workshop could succeed with two co-facilitators, one primary and one supporting facilitator, or even three total facilitators.

These individuals will need to work closely with any research group leaders or organizers to arrange the workshop. This may include assessing the research group participant interest areas, pulling from experience with similar trainings, establishing ideal working relationships or

learning existing group dynamics, and setting desired outcomes. Facilitation guidance expands on specific steps to take in this process. Above all, all members of this planning group should familiarize themselves with the topic literature, workshop plan, and teaching resources.

Facilitators should review the **Pre-Workshop Concepts, Literature Review, and References** documents to understand the specific sources that have informed this workshop.

Deliverables

This project offers a collection of tools to help expedite workshop facilitation and engagement.

The following list outlines the available documents, their intended audience, and purpose:

<u>Document</u>	<u>Intended Audience</u>	<u>Purpose</u>
Communications Plan	<i>Facilitation Team</i>	Describes objectives, scope, tools, and planning tips to help the facilitation team to deliver a successful workshop.
Facilitation Guide	<i>Facilitation Team</i>	Outlines workshop content and guides facilitators through modules for optimized workshop delivery.
Participant Guide	<i>Participants</i>	Outlines workshop modules and provides space for notetaking and worksheets for participants to use while engaging in exercises.
Schedule	<i>Facilitation Team</i>	Timeline for each workshop section, organized into two days.
Literature Review	<i>All</i>	Analysis of relevant science communication literature that has informed the workshop
References	<i>All</i>	Workshop original sources as citations, arranged by topic.
Pre-Workshop Concepts	<i>Participants</i>	Summarized explanations of key concepts used to inform critical background context for workshop purpose, development, and scope.

Participant Pre-Workshop Preparation	<i>Participants</i>	Overview of how to prepare for the workshop, from the participant's perspective.
Facilitator Pre-Workshop Preparation	<i>Facilitation Team</i>	Overview of how to prepare for the workshop, from the facilitator's perspective.
Workshop Slides	<i>All</i>	Used during workshop delivery to guide participant learning process. Available to all, but used primarily by facilitation team to help participants follow along with content.
Intake Form	<i>Facilitation Team</i>	Helps capture audience or research group goals, background experience, prior workshop exposure, and optimize workshop based on needs and conditions.
Participant Feedback Form	<i>Participants</i>	Provides an opportunity for participants to share their perspective on the workshop experience, facilitation team, content, or structure to help improve future workshops.
Facilitator Feedback Form	<i>Facilitation Team</i>	Provides an opportunity for facilitators to share their perspective on the process of leading and delivering the workshop, to help advance CSC trainings.
Overview (internal use only)	<i>Facilitation Team</i>	Summary of workshop dynamic elements to help orient facilitators.
Workshop Abstract	<i>Facilitation Team</i>	Overview of the workshop for marketing and promotional purposes

Preparing Workshop Delivery

Once the facilitation team is set, the members should hold a preliminary meeting to review workshop content, timelines, and potential participant groups. The facilitation team should

determine who will lead the workshop delivery, who will coordinate the participant outreach, and who will support technological delivery—these may be the same one or two individuals.

Facilitators should carefully read through all materials for the workshop, with particular emphasis on literature concepts that inform the content. The better facilitators understand the related literature, the better they can deliver a successful workshop and support participants along the way. **It is recommended that facilitators work through the workshop exercises themselves to see the content from an outside perspective, in addition to having personal narrative examples to share during the workshop.** For example, when asking participants to brainstorm their own life threads, facilitators might have prepared a few of their own to share as examples (in addition to those contained in the slides). As this workshop is a very personal process, having a real person share their experiences can promote a more honest, trustworthy, and fulfilling learning environment.

Timeline

The following timeline provides steps to take in advance of the workshop. Weeks listed are an approximation and may vary based on calendar years and holidays. Success of this timeline may be contingent on availability of a research group to participate in the workshop.

<u>Stage</u>	<u>Task</u>
8 Weeks from Workshop	Build facilitation team and begin material review; reach out to research groups to find participants
6 Weeks Out	Confirm participant group and workshop dates; conduct intake session with research group leadership; reserve room or arrange Zoom meetings
3 Weeks Out	Make any tweaks to workshop delivery plans based on intake information (group size, modality, accommodations, location, etc.)

2 Weeks Out	Send general information to research group, share workshop folder, tell participants to start pre-work before workshop date
Week of Workshop	Send reminder email about location, time, materials, and pre-work
Day 1 of Workshop	Join early and test all audio/video tools, arrange room seating, or set virtual breakout rooms
Day 2 of Workshop	Join early and test all audio/video tools, arrange room seating, or set virtual breakout rooms
1 Week After Workshop	Thank participants, send feedback form, collect responses

OUTREACH

Target Audience

The target audience for this workshop is a **group of 6-15 researchers** who are willing to explore new science communication training opportunities to support their external engagement initiatives. The EMERGE group serves as a great example for workshops associated with the CSC in the past as the group's existing familiarity minimizes the time required to help participants become comfortable and open-minded, which in turn expedites their willingness to explore new topics from their personal experiences. A smaller total number of participants will be easier overall, especially if this divides easily into **groups of three** for breakout sessions.

The workshop content is largely based on an individual exploring their own experiences, but additional support can help participants have a better experience. Participants do not need to have prior training in science communication, but ideally should have the capacity to explore the ideas contained in this workshop for their own future initiatives while sharing their research with audiences. Participants should leave feeling inspired, informed, and excited to apply the workshop concepts to their own lives.

Audience Motivators and Barriers

Participants will be motivated by the potential applications of this workshop content to help them communicate their research. As this is an emerging discipline and niche focus, workshops that provide an **applicable and approachable** training format will support the process of equipping researchers with new tools. This experience will likely not be commonplace among other institutions or contexts, which is motivating for participants. Additionally, existing research groups may experience greater connection when sharing this workshop experience together. Participants who have not engaged in science communication may feel uncertain about how to apply the concepts contained in this workshop to their own external engagement and should ask clarifying questions to their peers and facilitation team.

Participants may have a range of experience or comfort with engaging in self-reflection and sharing their personal narratives, which can lead to a variety of barriers in the workshop setting. Regardless, the workshop aims to accommodate these limitations to the best extent possible by offering adequate time for exercises and ample resources to explain and support content. The workshop structure aims to provide the most accommodating experience possible for the widest range of individuals, but these factors may still be present.

Marketing Resources

A **workshop abstract** is available in the project folder, along with graphics and descriptions that can be shared with potential audiences. The CSC's continued growth and connections across Colorado State University can offer strong opportunities to find facilitators, participant groups, or raise awareness about this workshop as a resource. Based on prior workshop success, the CSC can distribute marketing materials across a variety of channels to reach potential participants.

First, CSC social media platforms can reach immediate partners, organizations, and individuals. Next, spreading the word through the Department of Journalism and Media Communication and College of Liberal Arts platforms, websites, social media, and TV displays across campus are a highly effective route to spread awareness, and have proven very effective for prior CSC workshops and events.

Intake Process

When a research group expresses interest in participating in the workshop, CSC workshop facilitators should meet with research group coordinators to complete a brief intake process to discuss the most ideal and effective experience for that specific audience (see **Intake Form**). This process should occur roughly **six weeks prior** to the workshop date to allow for maximum flexibility. The purpose of the intake session is to share background information on the research group, express what the workshop can offer, and hear what the research group aims to achieve by engaging in the workshop. Then, facilitators can make any changes to provide an ideal experience. These two parties should identify any extraneous challenges or limitations and work to resolve them with as much time in advance as possible.

Some research groups may have set working groups that coordinate together on a regular basis. This can either form the basis for workshop breakout groups, or the leaders of the research group may wish to have their members work with those outside of their typical working groups. Even if the participants are not new to the program and have extensive experience working together, the leadership may use this workshop as a chance to include additional team-building opportunities. In response, CSC facilitators would ask for a list of the current working groups, then build breakout groups that do not include the same members.

One or more participants may be supported by some forms of learning accommodation. If so, the CSC facilitation team should work with the CSU [Student Disability Center](#) and research group leaders to support this.

By the end of the intake session, the groups should establish **how many participants** will join (or an approximate number to be confirmed quickly), a **target date and location**, and the **days for the two sessions** of the workshop. The sooner these details are confirmed, the smoother the process will be (see schedules and modality for more information). **Critical note: Part 1 and Part 2 of the workshop are connected and should be given close together, as schedules permit.** Ideally, both parts should be conducted within a close timeframe to help participants maintain momentum with building their ideas. The longer the gap between sessions, the harder it will be for participants to pick up where they left off.

Pre-Workshop Concepts

Two-weeks prior to the first session of the workshop, CSC facilitators should send out workshop resources to participants. This will include workshop locations (if in person) or Zoom links, a link to the participant resource folder with the pre-workshop concepts. The facilitators should request that participants spend time reviewing the pre-workshop concepts to become familiar with the literature that shaped the content in the workshop. Participants do not need to be experts on the topic, but carefully reading through the literature and noting key ideas will help them engage with concepts before entering the workshop setting, where more priority is placed on engaging through exercises. **Reviewing this material is an expectation for all participants.**

DELIVERY

Schedules and Modality

During the intake session, research group leadership and CSC facilitators can decide on an in-person or virtual setting for the workshop. This may be informed by the participants' proximity to campus or time constraints.

Regardless of the modality, all facilitation tools and participant materials can be accessed in digital forms without disrupting the learning experience. Breakout rooms can be used for group discussion in online spaces and participants can still maintain a sense of engagement and support in this space. However, given the length of the two sessions, virtual settings may be more straining and challenging for some participants. Additionally, the in-person setting allows for more casual discussion and relationship-building for participants, which may prove critically useful for some of the topic exercises. Given these tradeoffs, there are advantages to either modality.

If a virtual setting is selected, the CSC facilitators should schedule meeting rooms and share the links several times in advance of the workshop. If an in-person setting is decided, the CSU Lory Student Center has numerous rooms that will accommodate at least 30 people and should be reserved as soon as possible through the [LSC Event Planning services website](#).

Participant Experience

A critical component of the facilitator's role is to **foster a supportive learning environment** based on a close understanding of the material and responsiveness to the participants' expression. An effective facilitation team should be able to guide participants through challenging topics,

elaborate and explain points of confusion, check on group discussions to monitor learning, and encourage participation. The topics in this workshop are hard—participants may be challenged to be able to commit to the time and energy required to push through. The facilitation team should be able to lead with kindness and encourage them to persist.

Breakout rooms will be useful for participants to connect with other people and engage in shared learning instead of only a large group. **Keeping participants in the same breakout rooms** throughout the entire workshop will help foster support throughout the progression of building personal narratives.

An inclusive environment for this workshop is one that encourages people to respect that the personal narrative process is different for everyone, that other people have their own lived experiences, and that these differences are at the heart of what makes a workshop like this valuable. Participants should avoid interrupting others, telling them that their mindset is wrong, or suggesting that their lived experiences are not worthy of sharing. Instead, encourage participants to support each other by asking questions about framing the narrative, selecting certain angles, or serving as an outside perspective to share first impressions. In larger group settings, participants should be encouraged to ask clarifying questions as much as needed.

Review resources from The Institute for Learning and Teaching at CSU, such as [Inclusive Pedagogy](#), to ensure you are prepared to facilitate and support an inclusive environment.

Day-of Planning: Virtual Setting

For a virtual workshop, facilitators should launch the Zoom call fifteen minutes prior to the workshop start to allow research group leaders to join early and discuss any last-minute questions. While waiting, setup the breakout rooms according to what was decided earlier: either

participants are assigned to their working groups or are randomly assigned to people they do not regularly work with. This should remain the same groups for all breakout sessions. Test all audio and video settings and launch the workshop slides as a shared screen. As participants join, welcome them, and help them access the participant workshop folder link. Post this link in the chat as well. As more people join, continue to make sure everyone has access to the folder. Encourage people to have their cameras on whenever possible.

Day-of Planning: In-Person Setting

For an in-person workshop, facilitators should get to the room at least twenty minutes ahead of time. Print workshop signs to post on the doors and make sure the room number has been shared several times in advance. When booking the room, request the tables to be arranged in accordance with the number of breakout room groups required. Test all video and audio equipment and start presenting the workshop slides. Greet participants as they enter and help them feel welcome as they get settled. Make sure they understand that their groups are either pre-assigned or random. Encourage them to pull up the workshop folder and have access to the materials. Help them get access to the internet if they don't have it. Troubleshoot any questions as they get settled.

PROJECT EVALUATION

Key Indicators

Achieving the following steps will serve as key indicators of success during workshop implementation. First, the selection of a facilitation team will require discussion of roles and responsibilities. This group will then determine what research group is available and interested in engaging with the workshop, which may involve coordination with partner organizations. All content and preparation outlined in this project should be clear, logical, and applicable for the facilitation team, and not require them to find additional research or teaching resources. In advance of the workshop, the facilitation team should have a clear understanding of the participant backgrounds and desired outcomes, then adapt the workshop modality, breakout groups, pace, or level of detail accordingly.

During the workshop, participants should be engaged, interested in the content, and invested in creating a productive outcome. There should be a comfortable relationship between the facilitation team and the participants, allowing for an environment that promotes vulnerability, knowledge-sharing, and exploration. Participants should feel empowered to advocate for their needs, ask for clarification, and collaborate with peers. Afterwards, participants will ideally express positive experiences and ease of comprehending the materials, share effective feedback on the facilitation approach, express value in the time invested on exercises, and find strong applicability with the content in order to move forward in their work. If these factors hold true, the Center for Science Communication should find the workshop format valuable and worth replicating as a demonstration of external engagement, partnership building, knowledge-sharing, and community building.

Feedback Forms

The feedback forms for this workshop are a chance to get authentic feedback from workshop participants within several weeks of the second session of the workshop. Share these forms with participants and encourage them to share honest thoughts about the effectiveness of the workshop topic, presentation, facilitation approach, and other learning experience feedback. This information is essential to help the CSC understand what factors are most effective, what needs to be adjusted, and what might need to be significantly different for future workshops.

Prior Workshop Feedback

In April 2023, the CSC hosted ‘Sharing Your Science: the EMERGE Group Storyboarding Workshop’ for a group of EMERGE researchers on Zoom, facilitated by Jaime Jacobsen with co-facilitation support from Field Peterson. The group progressed through the workshop with high interest, curiosity, and engagement with peers. Overall, participants expressed an appreciation for the topic and had a positive experience. After the workshop, the CSC shared a pilot version of the **Feedback Form** and received nine responses. Participants expressed that the workshop objectives were clear, the structure supported their learning process, the content was useful to their careers and to the field of science communication. They felt the facilitation team was prepared and knowledgeable, equipped for a range of participant needs, and the delivery was clear.

Participants expressed that the breakout rooms were a valuable chance to discuss ideas with peers, especially with people they did not typically work with. Participants expressed the need for more time to discuss ideas, especially in breakout rooms, and that the workshop was

slightly too condensed or dense overall. To overcome this, the Souls of Science workshop is entirely structured around exercises and breakout rooms, keeping other ‘lecture’ content limited and supplemental. This pilot trial of the Feedback Form worked well to capture participant feedback immediately after the workshop, and the form fields provided a range of opportunities for them to express their thoughts on the strengths and weakness of many aspects of the workshop experience.

Key Learning Objectives

This workshop guides participants to a specific goal—developing and sharing a personal narrative. While achieving this final product is the primary learning objective, participants will also gain exposure to the process of examining their life experiences, developing a target audience, structuring a compelling story, exploring visual narratives, and building social media posts. The primary objective overall is designed to guide participants through a process that they can replicate and feel empowered to engage in a similar process outside of the workshop. The skills associated with this process are also replicable outside of the workshop, though not designed to be standalone or complete. That is, the process of exploring life narratives is focused on the specifics of this workshop and would warrant additional context and information in other settings.

The workshop itself mirrors [Bloom’s Taxonomy](#), where participants engage with concepts at a broad scale, then apply and create a product. Pre-workshop concepts provide participants with background facts and research. After understanding these, they can apply the concepts within the exercises in the workshop. They will analyze examples and evaluate their

effectiveness. The final aspects of the workshop involve creating a product that has been informed by participants' prior first-hand engagement with concepts.

Anticipated Outcomes

A close examination of the broad scope of science communication literature indicates that this workshop will be a beneficial training for the Center for Science Communication to offer to research groups. The CSC's menu of workshops benefits from this project's specific, applicable focus that can engage a range of scientists from different disciplines. The format and logistics can serve as a model for similar endeavors as the CSC advances their menu of science communication workshops over time, alongside a review of facilitation processes and improvements. When the workshop is implemented and conducted several times, CSC facilitators can gain experience with hosting and refining the delivery of a large-scale, in-house workshop production. As a graduate student project, the workshop may serve as a model for other student projects associated with the CSC in the future.

This project provides a workshop that focuses on training scientists to develop and visually represent their personal narratives as a precursor to scientific dialogues, with the overall goal of promoting trust through their individualized communications efforts outside of the workshop. Aiming to promote trust between scientists and the public is a worthy goal that can be fostered by finding specific settings to share and practice tools for real-world applications. As demonstrated by other organizations giving space for personal narratives of science, such as The Story Collider, merging scholarship and application may inform future studies and science communication research.

Project Limitations

This project does not include an initial pilot launch of the workshop, instead focusing on elements to expedite the delivery process for the CSC. The tools provided to analyze the effectiveness of the workshop can inform how the CSC may transfer the format to other subjects or training goals over time.

The success of the workshop is contingent on some factors that cannot be accounted for in this project. First, some participants may require additional time to complete workshop exercises and integrate lesson content. This should not diminish their experience, as the workshop first serves as an experiential endeavor to inspire and inform participants' future communications efforts. Facilitators must be informed on the materials and topic and committed to help participants succeed, ideally with some experience leading workshop trainings.

Participants, due to variation in backgrounds, comfort, and open-mindedness, may have a range of experiences in the workshop, which cannot be entirely accounted for in advance, though can be mitigated by facilitation preparation. The project also assumes that participants will be interested in the subject and willing to explore new opportunities, engage with challenging ideas, and share their perspectives honestly. Participants may express interest in understanding the scholarship associated with this project to understand how larger themes inform the specific approach in the workshop and should be encouraged to access the reference list to inform their perspective.

This project does not attempt to pre-emptively categorize or address participant backgrounds or disciplinary focuses. This is important in allowing the workshop to be broadly applicable, though may be less targeted than a workshop for a specific type of research group.

This open-ended, community-focused approach is more aligned with the CSC's mission and focus areas and allows for easier adaptation in the future to a wide range of audiences.

Conclusion

This project delivers a clear, action-driven workshop informed by a wealth of science communication literature and fundamental media communication principles. The workshop showcases research topics to encourage participants to consider new perspectives and explore them through firsthand experience. As an emerging hub for research, the Center for Science Communication should prioritize these experiential endeavors and invest into sharing research and developing training for the CSU community. Further, this workshop serves as a valuable resource for future trainings and initiatives for graduate students' engagement with scholarship and application of principles. In the broader discussion of personal narratives in science communication, this project parallels several successful organizations that merge scholarship and action to build the basis of future research. With the evolution of climate issues, novel technological advancements, and shifting social perspectives on media engagement, personal experiences in workshops and focused training sessions will prove to be the training ground for the next generation of communicators.