

How to Create a High-Quality Engagement Plan to Disseminate STEM Research and Innovations

Emily Loney, Senior Researcher, American Institutes for Research

June 9, 2022

Welcome!

Take a moment to introduce yourself in the chat box.

Please tell us your

- name,
- organization, and
- affiliation with the Discovery Research PreK–12 (DRK-12) program (e.g., principal investigator, project team member, evaluator, or aspiring principal investigator).

Virtual Meeting/Conference Recording Notice

The American Institutes for Research® (AIR®) allows for the recording of audio, visuals, participants, and other information sent, verbalized, or utilized during business-related meetings. By joining a meeting, you automatically consent to such recordings. Any participant who prefers to participate via audio only should disable their video camera so that only their audio will be captured. Video and/or audio recordings of any AIR session shall not be transmitted to an external third party without the permission of AIR.

AIR Inclusive Meeting Guidelines

Hosting and Participating in Meetings



ENGAGE EVERYONE

Consider participants' needs (e.g., visual, auditory, sensory, cognitive, physical, and language). Establish meeting norms to encourage participation. Ask participants to alert the meeting facilitator if they have difficulty seeing the content and/or hearing the presenter. Designate a meeting monitor to address audiovisual issues, monitor the chat box, and respond to participants as needed.



MINIMIZE NOISE

Avoid moving around or shuffling materials on your desk during the meeting. Eliminate crunching or chewing noises and loud typing, which interfere with sound quality for virtual participants and are amplified by microphones and sensory aids for visual or auditory impairments. Speak from a stationary position to keep the audio clear. Mute your phone or your computer microphone when you are not speaking.



MAXIMIZE MICROPHONES

Presenters should use microphones to ensure that their voice is loud enough for all to hear. Microphones are needed for face-to-face and virtual meetings and are critical for engaging remote colleagues as well as persons with hearing loss. During virtual meetings, use headphones with a built-in microphone to make sure that the facilitator and attendees can hear you. During face-to-face meetings, set up microphones for the facilitator, presenters, and attendees. Make sure that hand-held microphones are available for meetings that include audience participation. Make sure that speakers are positioned near a microphone.



ACKNOWLEDGE SPEAKER

Provide an auditory or visual cue before speaking to identify yourself as the speaker. State your name for those who cannot see you. When asking for questions or comments, meeting facilitators should allow five to seven seconds for participants to use the "raise the hand" tool, unmute their phones, or provide a response in the chat box. Be comfortable with the wait time.



BE HEARD AND SEEN

Project your voice when speaking. Only one person should speak at a time. Avoid overlapping and sidebar conversations. Position everyone present so that they can be seen on screen. Encourage virtual participants to use their webcams if they feel comfortable doing so. Let people see your facial expressions and body language clearly if you are using your webcam.



MAXIMIZE VISUAL DISPLAYS

Email materials to participants before the meeting. Display meeting documents on screen and capture the main discussion points verbally and visually by taking notes, restating key concepts, or using the chat box. If a participant asks for clarification, rephrase the content instead of repeating it. Assign a meeting note taker so that the meeting leader and monitor can focus on engaging participants. Notes also ensure access for individuals with executive function-related needs, processing disorders, or visual/auditory impairments.

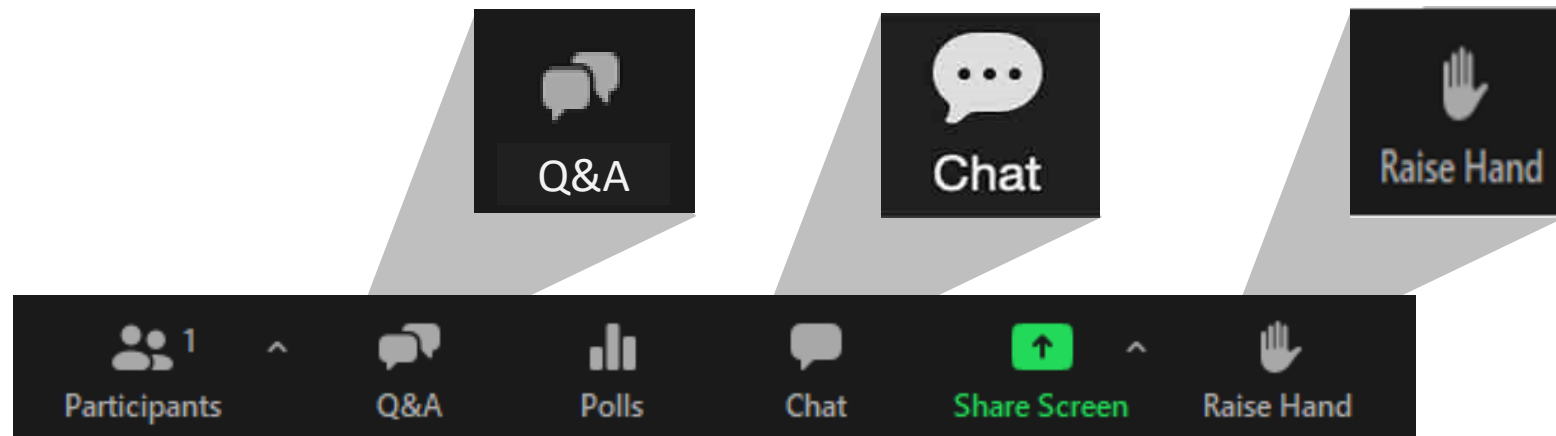
These guidelines are intended to improve the meeting experience for all participants, including meeting facilitators, monitors, and attendees, as well as people with hearing loss or visual impairment, and those for whom English is an additional language. Some of the guidance presented here may apply only to in-person meetings, or virtual meetings, while other guidance applies to both meeting types. Developed by the Access AIR and AIR CREW Employee Resource Groups With Support From the AIR Diversity, Equity, and Inclusion Office

How to Use Zoom

Click on the **Q&A option** to ask a question and receive a quick response.

Click on the **Chat option** to introduce yourself, share your thoughts and ideas when prompted, and to let us know about any technical issues.

Click on **Raise Hand** if you would like to unmute and ask a question.



How to Use Zoom

Please participate in **Zoom polls** when prompted.

The poll will appear on your screen. Respond to the question by selecting a response(s), then click **Submit**.

Results will be shared on the screen.

Polls

Connection

1. How are you attached to the meeting?

☐ Windows PC

☐ Mac PC

☒ Android phone/tablet

☐ iOS phone/tablet

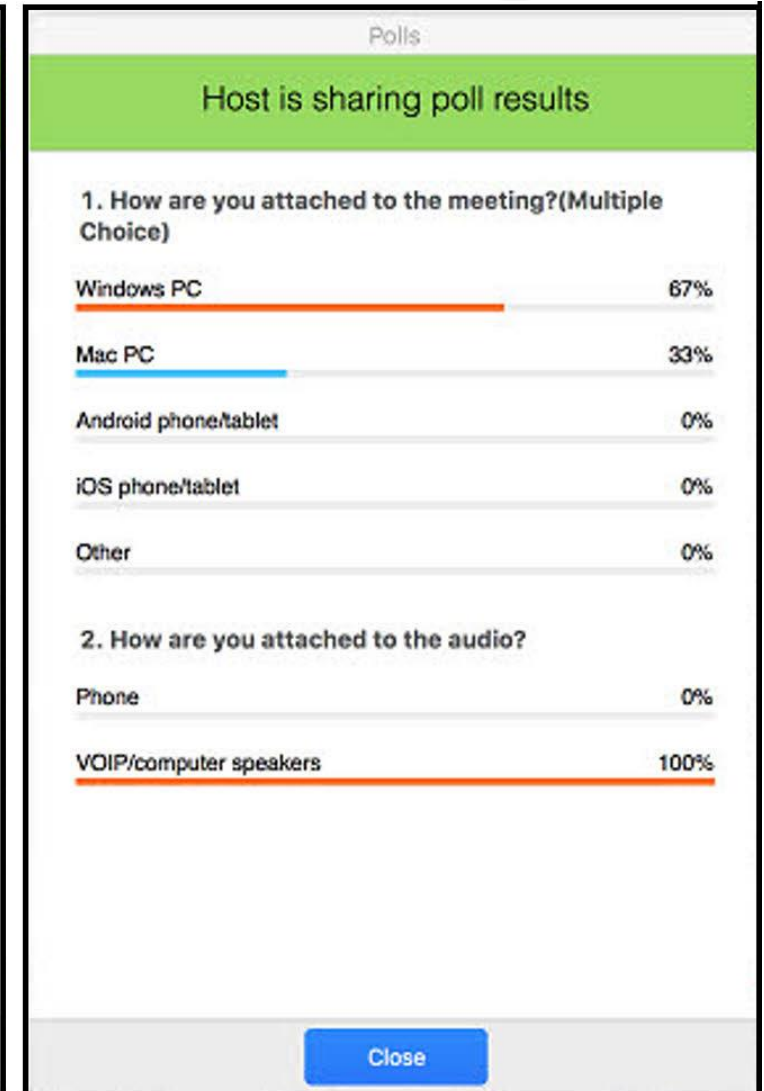
☐ Other

2. How are you attached to the audio?

☒ Phone

☐ VOIP/computer speakers

Submit



Agenda

1. Introduction to the Evidence Quality and Reach (EQR) Hub
2. How to Create a High-Quality Engagement Plan to Disseminate STEM Research and Innovations
 - Value and Components of Dissemination Plans
 - Target Audiences
 - Approach to Developing Dissemination Plans
 - Tools to Consider
3. Next Steps

Introduction to the EQR Hub

Funding



This work is made possible by the
National Science Foundation (NSF)
under Grant No. 2101162.

Charge of the EQR Hub

The EQR Hub will provide current and aspiring STEM education researchers **targeted learning opportunities on research methods, knowledge translation, and DEI (diversity, equity, and inclusion)**. The hub will develop and implement virtual webinars and workshops for researchers in the DRK-12 community, convene communities of practice, and engage in individualized consultations with DRK-12 projects.



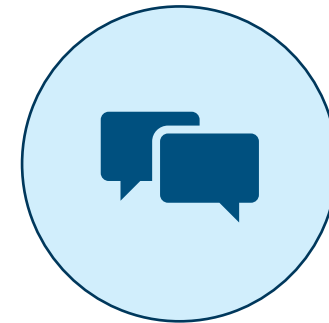
Webinars



**Communities of
Practice**



Workshops



**One-on-One
Consulting**

Link to EQR Hub Resources



WS

PROJECTS & PEOPLE

EARLY CAREER

RESOURCES

EVENTS

ABOUT

Home

Projects

Evidence Quality and Reach Hub for the DRK-12 Community

PROJECT DETAILS

LEAD ORGANIZATION(S):
American Institutes for Research (AIR)

AWARD NUMBER:
2101162

FUNDING PERIOD:
July, 2021 to December, 2024

PROJECT MEMBERS

Danielle Ferguson
Principal Investigator

Melissa Rasberry
Former Principal Investigator

Sarah Rand
Co-Principal Investigator

Dean Gerdeman
Co-Principal Investigator

Michael Steele
Program Officer

Evidence Quality and Reach Hub for the DRK-12 Community

Understanding the impact of STEM education efforts requires researchers to have cutting-edge knowledge of advanced research methods and the ability to translate research knowledge to multiple and diverse stakeholder audiences. The Evidence Quality and Reach (EQR) Hub project will work explicitly to strengthen these two competencies through focused work with the Discovery Research PreK-12 research community. The hub will develop and implement workshops and learning opportunities for researchers in the community, convene communities of practice to discuss specific research methods, and engage in individualized consultations with DRK-12 projects.

Full Description:
Understanding the impact of STEM education efforts requires researchers to have cutting-edge knowledge of advanced research methods and the ability to translate research knowledge to multiple and diverse stakeholder audiences. The Evidence Quality and Reach (EQR) Hub project will work explicitly to strengthen these two competencies through focused work with the Discovery Research PreK-12 research community. The hub will develop and implement workshops and learning opportunities for researchers in the community, convene communities of practice to discuss specific research methods, and engage in individualized consultations with DRK-12 projects. These activities are designed to strengthen current and future work in PreK-12 STEM education research.

This project will work at multiple levels to support the DRK-12 research community. Universal activities such as webinars will be developed and deployed to support researchers in learning about new research methods and strategies for translating research for a broad set of stakeholder communities. Collective activities will involve a small number of DRK-12 projects in discussing particular research and dissemination issues common to their work in communities of practice and via virtual workshops. Individual projects will also be offered consultations on their current work. The project will begin with needs-sensing activities that will identify important themes and areas of focus for the universal, collective, and individual work. The project will collect data about the efficacy of their endeavors through surveys, user analytics from online collaboration spaces, and interviews with approximately 10 projects per year.

This project builds off a previous grant, Advancing Methods and Synthesizing Research in STEM Education. Find resources from their webinar series on literature reviews, meta-analytic techniques, social network analysis, program implementation measurement, and evidence standards for evaluating math and science programs.

Virtual event materials will be archived on the CADRE website for ease of access and navigation:

<https://cadrek12.org/projects/evidence-quality-and-reach-hub-drk-12-community>

Link to research methods webinars hosted by AIR and funded by a prior NSF grant:

<http://www.cadrek12.org/resources/air-methodology-webinar-series-designed-drk-12-program>

How to Create a High-Quality Engagement Plan to Disseminate STEM Research and Innovations

- Value and Components of Dissemination Plans
- Target Audiences
- Approach to Developing Dissemination Plans
- Tools to Consider

Meet the Presenter

Emily Loney

American Institutes for Research
Senior Researcher



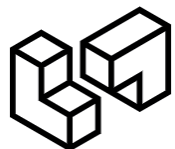
Why Is Dissemination Important?



Amplify research findings and project activities.



Connect with collaborators, community members, and partners.



Build the use of new resources and information.



Effect change.

Activity

What is the difference
between dissemination
and engagement?

Dissemination and Engagement

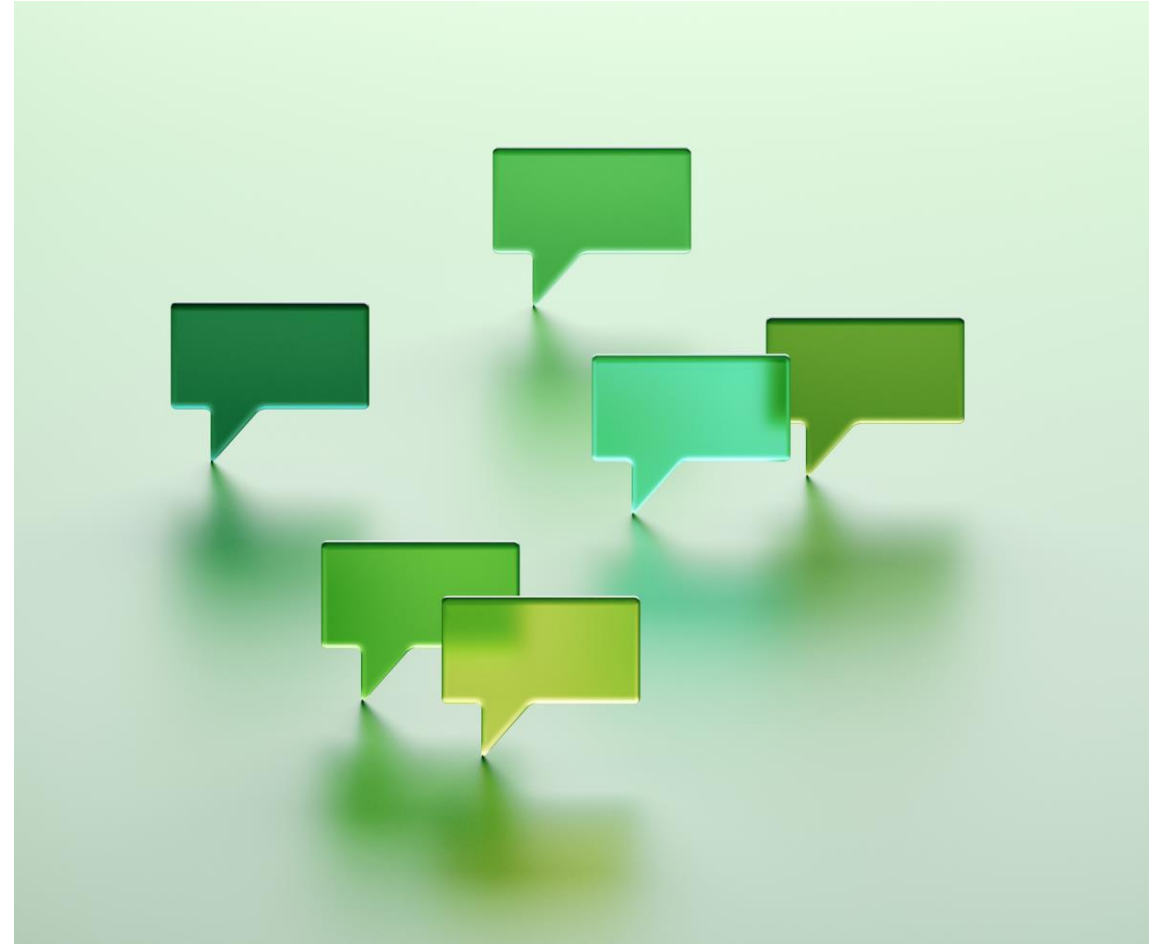


Dissemination is **collaborative, interactive,** and **engaging.**

Engagement is a **two-way, iterative process** of researcher and practitioner exchanges that support the development of relevant research and the use of that research in practice.

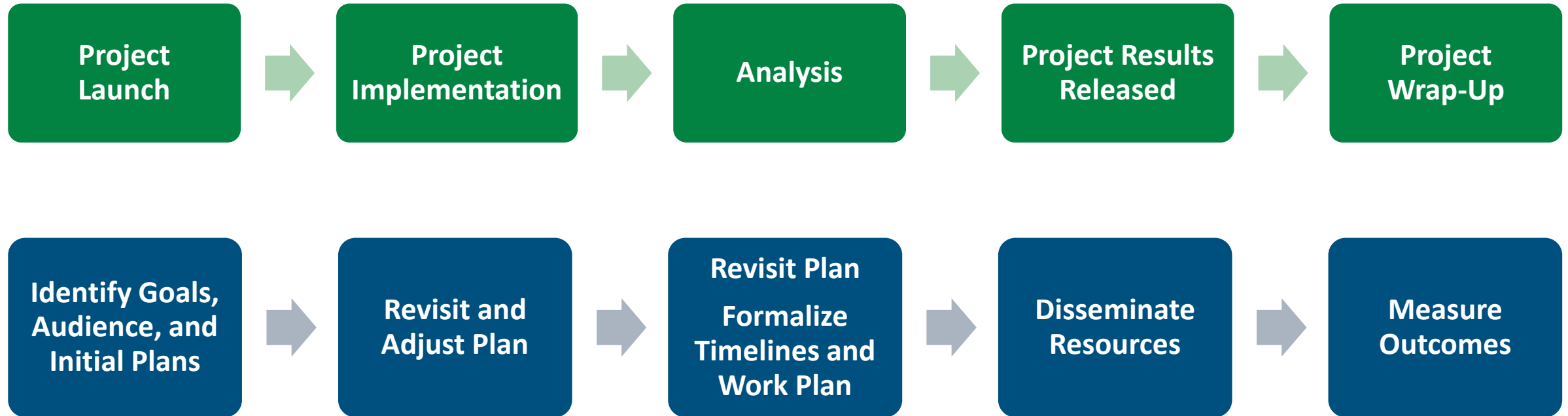
What Is an Engagement Plan?

An engagement plan is a **living document** that maps out plans for disseminating research findings or products to those individuals who will **use** the information.



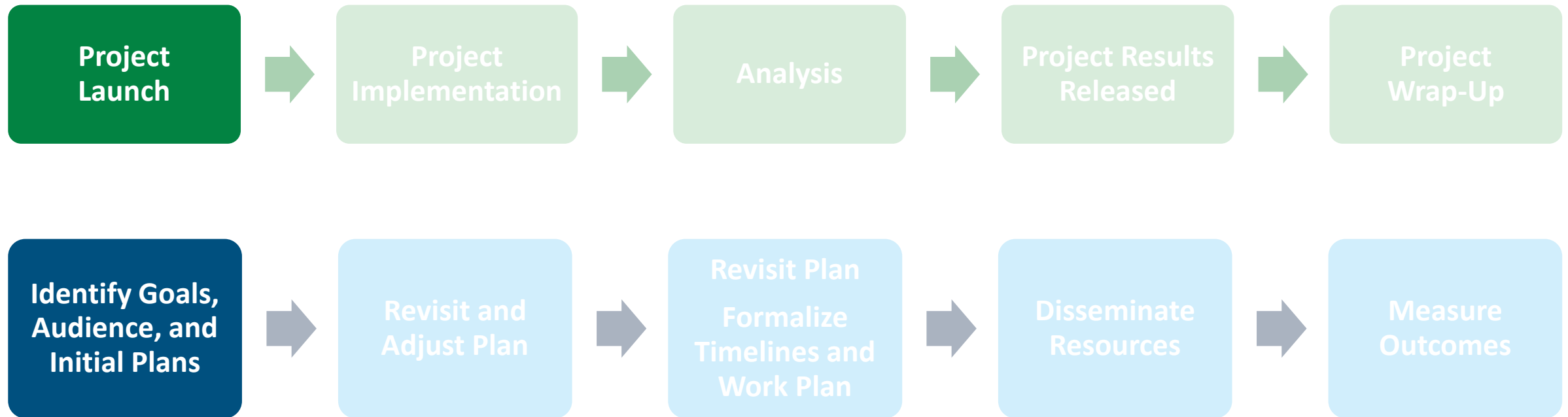
When Does Engagement Planning Occur?

Engagement planning ideally begins at the **start of a project** and builds toward final outreach.



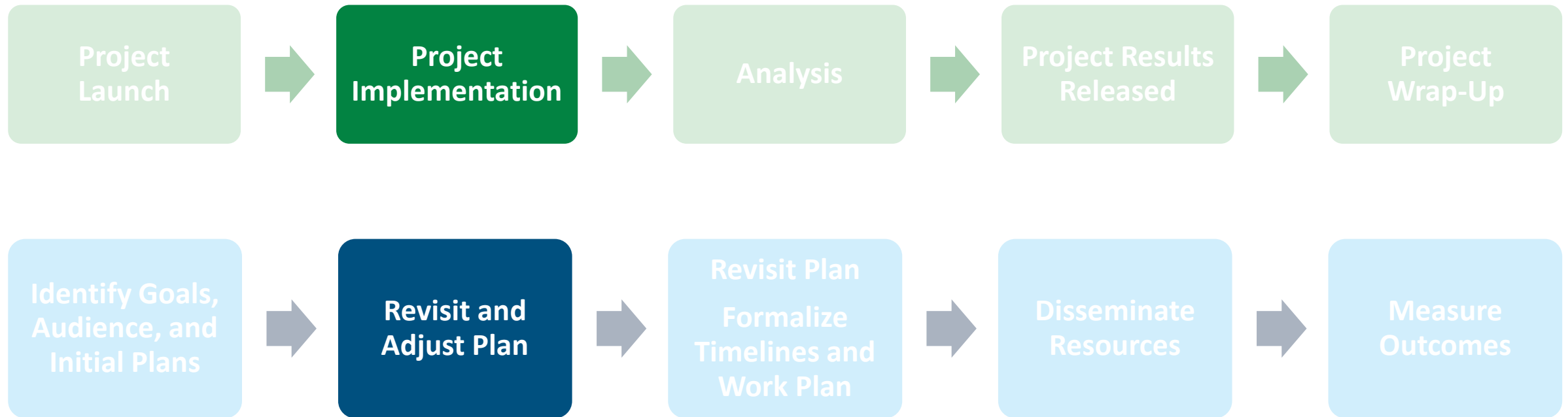
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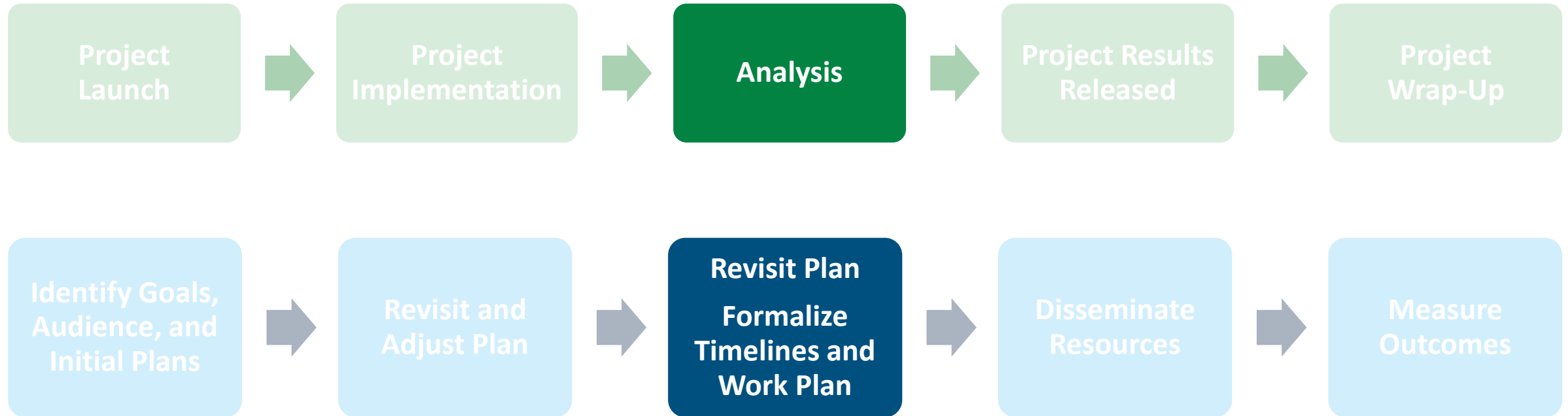
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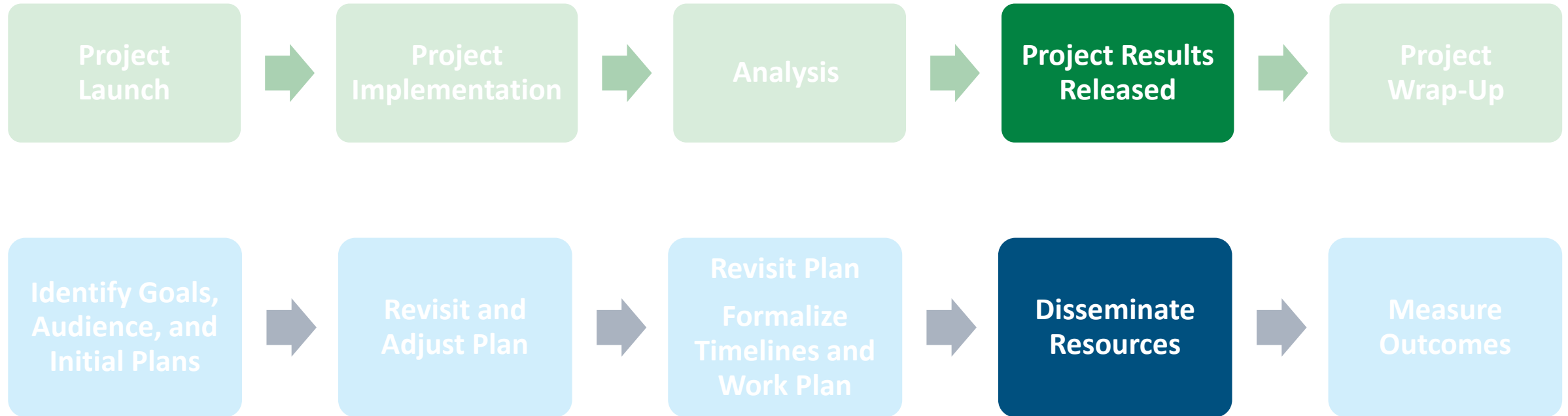
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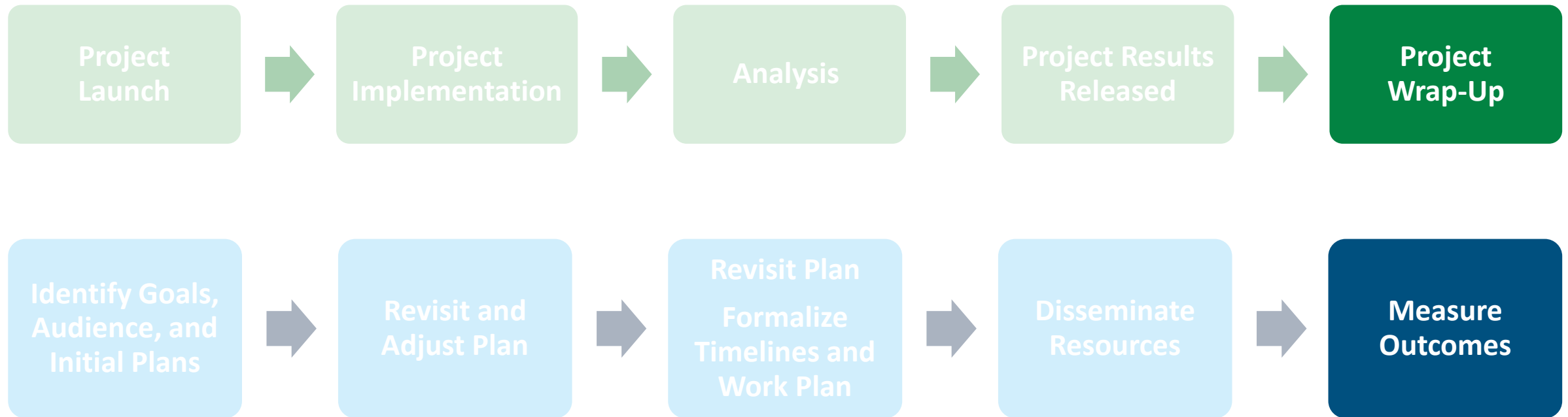
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Q & A



Engagement Plan Components

- **Goal** for project
- **Audience** and key messengers identification
- **Strategies** (matched to audience)
- **Key messages**
- **Outcomes** tracker



Who Are Your Audiences?

Audience	How do they consume information?
Teachers	<div>Enter in Zoom CHAT</div> <div><i>Please share examples of resources and approaches that have worked well with a particular audience.</i></div> <div><i>Enter as “audience - approach.”</i></div>
District leaders	
State education agency staff	
Policymakers	
Community members	
Research community	

Matching Audience to Approach

Audience	Example approaches
Teachers	Practice guides, resource sheets, videos
District leaders	Professional development resources, resource sheets, videos, infographics
State education agency staff	Infographics, research snapshots, presentations
Policymakers	Policy brief, research snapshot, presentations
Community members	Videos, handouts
Research community	Journal articles, conference presentations

DEI Considerations

All dissemination plans should consider the diversity of the groups directly involved in the project and those groups who will use the results. Questions to consider:

- Do the identified **audiences** capture the full range of interested and affected parties?
- What **language and framing** do your partners and identified audiences use related to this topic?
How do they describe the *need* related to this work?
- Are the **resources** designed to be accessible and fit how your audience's intake information?
- Do practitioner-oriented resources use **plain language**, and are they written for a **nontechnical** audience?

DEI Resources

- [Why Am I Always Being Researched?](#)
- [plainlanguage.gov](https://www.plainlanguage.gov)
- [The Communications Network: DEI Resources](#)
- [Community-Centered Dissemination Toolkit](#)
- [Principles and Preferred Terms for Non-Stigmatizing, Bias-Free Language](#)



How Will You Measure Impact?

- Identify **measures** for dissemination outcomes at the start of the project.
- Consider which **tools** will support the collection of data related to dissemination.
- **Revisit** the measurement plan throughout the course of the project.



Measuring Impact: Goals and Tools

Consider what data are available through tools like website analytics, newsletter reports, and social media engagement analytics.

Resource Visibility

- **Mentions:** *There will be at least 5 mentions of TITLE in the news media and/or education blogs.*

Website Statistics

- **Page views:** *Six-month goals will include 500 page views.*
- **Downloads:** *The infographic will be downloaded at least 75 times per month for the 3 months following the study release.*

Use

- *By 2024, 5 districts will adopt the at least 1 recommendation from our piece.*
- *The training guide will be used by at least 10 programs in the next 6 months.*

Enter in Zoom CHAT

What additional tools might be used to capture dissemination outcomes?

STEM Interest and Engagement Study

- **Project goal:** Better understand youth experiences in STEM-oriented, summer learning programs and how those experiences relate to the learning environment and staff practices.
- **Audience:** Staff and leaders of out-of-school STEM programs

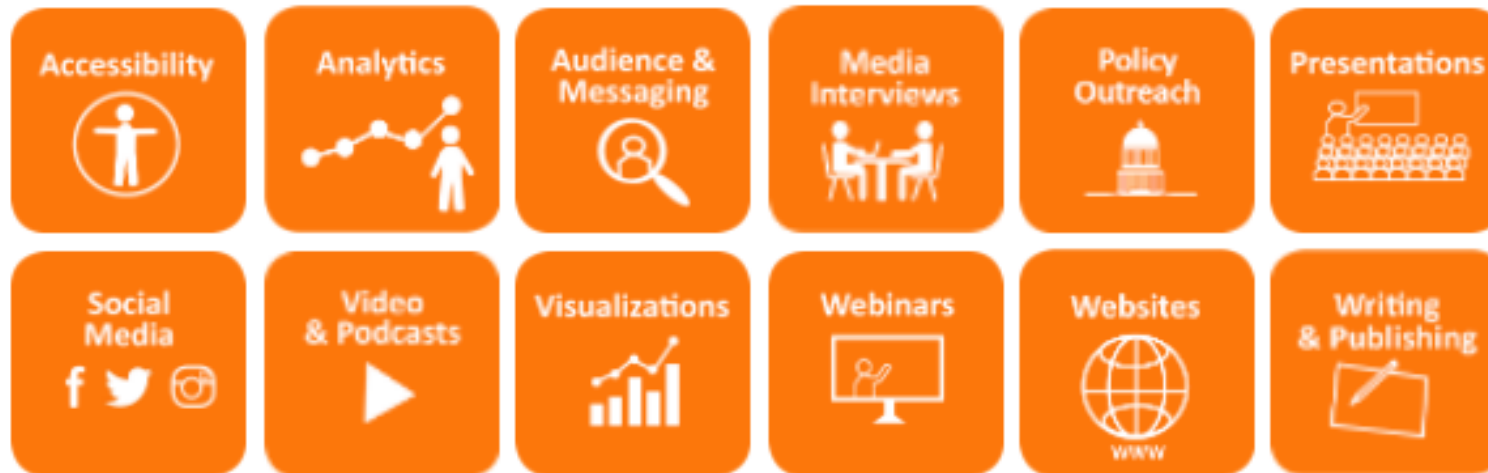


STEM Interest and Engagement Study

- **Key messengers:** Click2Science, You for Youth, national afterschool organizations
- **Strategies:** Practitioner-oriented toolkit, professional development resources, brief videos about featured programs, website housing all links and resources
- **Key message:** “The more youth experienced in-the-moment engagement in programming during the span of the summer, the more likely they were to report growth in STEM interest and future aspirations.”
- **Outcomes:** Project could collect metrics from website clicks, resource downloads, count of use of materials in different trainings

CADRE's Dissemination Toolkit

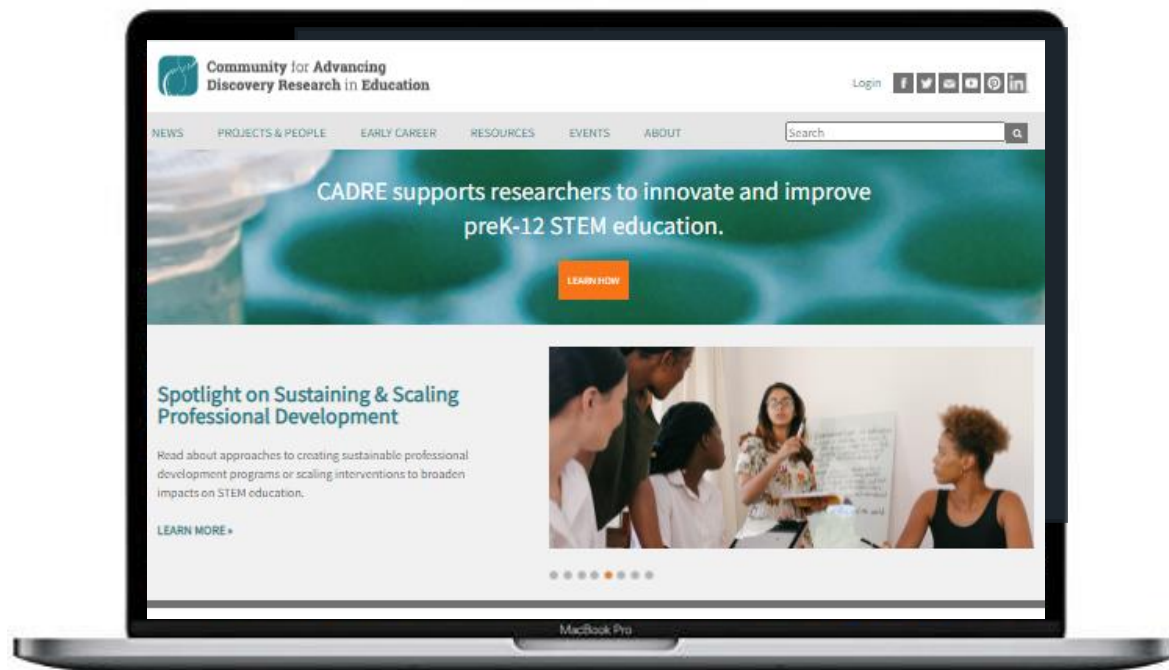
- [Project Communication Plan](#)
- [Guide to Product Dissemination](#)
- [Methods & Approaches](#)



<https://cadrek12.org/dissemination-toolkit>

Next Steps

Moving Forward



Visit the CADRE website
and EQR Hub page.

<http://cadrek12.org/>

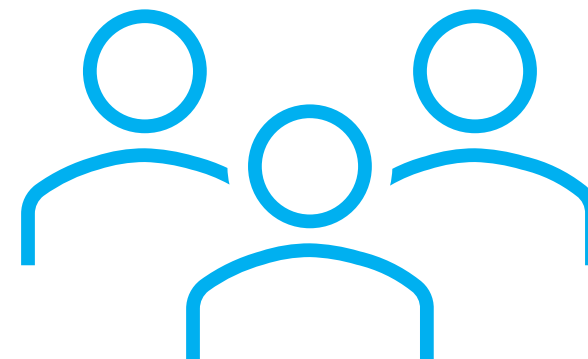
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EQR Hub Community of Practice

Topic: Design a Communication and Engagement Plan

3 virtual sessions, 90 minutes each, include a virtual learning space

Timeline: July/August 2022, dates TBD



Join the Design a Community and Engagement Plan Community of Practice! Throughout three sessions, you will dig deeper into topics and develop your own engagement plan for a current or future research and design project.

As part of the community of practice experience, you will interact directly with subject matter experts and receive feedback about your engagement plans. An output of the community of practice will be custom, jointly developed checklists for engagement plans. Beginner and experienced aspiring and current NSF grantees welcome!

Watch for an email with additional information and how to sign up.

Feedback

Please fill out the **event survey** following this webinar.

<https://www.surveymonkey.com/r/XJCXRBV>



Thanks for attending!
