



Research agenda setting workshop: Facilitator's guide

American Institutes for Research

July 2018

Contents

| | |
|---|---|
| Using the facilitator's guide..... | 1 |
| Agenda overview..... | 1 |
| Section 1: Welcome and introductions..... | 2 |
| Purpose..... | 2 |
| Materials..... | 2 |
| Annotated Agenda | 2 |
| Section 2: Overview of the organization..... | 3 |
| Purpose..... | 3 |
| Materials..... | 3 |
| Annotated agenda..... | 3 |
| Section 3: Identify research topics | 4 |
| Purpose..... | 4 |
| Materials..... | 4 |
| Annotated agenda..... | 4 |
| Section 4: Types of research and evidence | 5 |
| Purpose..... | 5 |
| Materials..... | 5 |
| Annotated agenda..... | 5 |
| Section 5: Research questions and agenda | 6 |
| Purpose..... | 6 |
| Materials..... | 6 |
| Annotated agenda..... | 6 |
| Section 6: Next steps and adjournment | 8 |
| Purpose..... | 8 |
| Materials..... | 8 |
| Annotated agenda..... | 8 |

| | |
|---|----|
| Appendix A. Sample agenda..... | 9 |
| Appendix B. Facilitator's presentation slides | 10 |
| Appendix C. Group agreements..... | 25 |
| Appendix D. Organization goal template | 26 |
| Appendix E. Activity sheet: Research topics | 27 |
| Appendix F. Activity sheet: Generating research questions | 28 |
| Appendix G. Research agenda template | 32 |

Tables

| | |
|---|---|
| Table 1. Agenda overview | 1 |
| Table 2. Section 1: Welcome and introductions..... | 2 |
| Table 3. Section 2: Overview of the organization..... | 3 |
| Table 4. Section 3: Identify research topics..... | 4 |
| Table 5. Section 4: Types of research and evidence..... | 5 |
| Table 6. Section 5: Research questions and agenda..... | 6 |
| Table 7. Section 6: Next steps and adjournment..... | 8 |

Using the facilitator's guide

The purpose of a research agenda setting workshop is to engage participants (for example, a state or local education agency, or a research alliance) in a collaborative process to identify research priorities and develop a set of research questions aligned to these priorities. Together, these priorities and questions will comprise a coherent research agenda that will guide that group's work for three to five years.

This facilitator's guide contains materials designed to engage participants in a research agenda setting workshop—collectively identifying research topics, research questions, and a research agenda to guide the work of a research group.

Agenda overview

Table 1 provides an overview of the agenda for the research agenda setting workshop. Timeframes are provided as estimates; however, activities may be shortened or lengthened based on participant understanding of the content. A sample agenda that can be adapted and distributed to participants is given in appendix A.

Table 1. Agenda overview - Example

| Agenda item | Timeframe | Slides | Materials |
|--------------------------------|------------|-----------|---|
| Welcome and introductions | 15 minutes | 1–3 | Agenda (appendix A) Presentation slides (appendix B) |
| Group agreements | 5 minutes | 4 | Group agreements (appendix C) |
| Overview of the organization | 20 minutes | 5 and 6 | Organization goal template (appendix D) |
| Today's purpose and goals | 5 minutes | 7 and 8 | |
| Identify research topics | 30 minutes | 9–12 | Pens and markers Activity sheet: Research topics (appendix E) Large sticky notes Chart paper |
| Break | 10 minutes | 13 | |
| Types of research and evidence | 30 minutes | 14–17 | |
| Research questions and agenda | 25 minutes | 18–23 | |
| Prioritize research topics | 30 minutes | 24 and 25 | |
| Lunch | 45 minutes | 26 | |
| Generate research questions | 40 minutes | 27–31 | Pens and markers Activity sheet: Generating research questions (appendix F) Chart paper |

| Agenda item | Timeframe | Slides | Materials |
|-------------------------------------|------------|-----------|---------------------------------------|
| Share and refine research questions | 50 minutes | 32–35 | |
| Break | 10 minutes | 36 | |
| Prioritize research questions | 30 minutes | 37 and 38 | |
| Generate research agenda | 15 minutes | 39–41 | Research agenda template (appendix G) |
| Next steps, survey, and adjourn | 30 minutes | 42–44 | |

Section 1: Welcome and introductions

Purpose

This section provides context for the work session, time for participant introductions, and an opportunity to articulate the group agreements that will make expectations for the day's outcome explicit.

Materials

- Agenda (appendix A)
- Slide deck: Slides 1–4 (appendix B)
- Group agreements (appendix C)

Annotated agenda

Table 2. Section 1: Welcome and introductions

| Agenda item | Description | Slides | Materials |
|--|--|--------|-----------|
| Welcome and introductions (15 minutes) | <ul style="list-style-type: none"> • Welcome participants to the meeting. • Share purpose of the meeting and its connection to the larger work or initiatives in which participants may be engaged. • Review agenda for the day. • Facilitate introductions of participants: <ul style="list-style-type: none"> – Name – Organization or school – Title – Share a tip that will make it easier for others to work with you. Take a minute to think about what's really important to you when you work in a group. It may be helpful to think about something that stops your participation. | 1–3 | Agenda |

| Agenda item | Description | Slides | Materials |
|------------------------------|--|--------|------------------|
| Group agreements (5 minutes) | <ul style="list-style-type: none"> Discuss the expectations for today's group collaboration. Review the starter set of expectations. Ask participants to provide any additional expectations. | 4 | Group agreements |

Section 2: Overview of the organization

Purpose

This section provides an overview of the organization creating the research agenda, including its structure, its members, and its broad goals or mission.

Materials

- Slide deck: Slides 5–8 (appendix B)
- Organization goal template (appendix D)

Annotated agenda

Table 3. Section 2: Overview of the organization

| Agenda item | Description | Slides | Materials |
|---|--|---------|----------------------------|
| Overview of the organization (20 minutes) | <p>The organization</p> <ul style="list-style-type: none"> Organizational structure Members <p>Organization goal, mission, and purpose</p> <ul style="list-style-type: none"> Review formal goal Does our goal make sense? Should we add or remove any language? | 5 and 6 | Organization goal template |
| Today's purpose and goals (5 minutes) | The purpose for coming together is to engage in a collaborative process to identify research priorities and develop a set of research questions aligned to these priorities. Together, these will comprise a coherent research agenda that will guide our work in the next three to five years. | 7 and 8 | |

Section 3: Identify research topics

Purpose

This section allows participants to work individually and in small groups to identify research topics that are relevant to the organization's goals.

Materials

- Slide deck: Slides 9–14 (appendix B)
- Activity sheet: Research topics (appendix E)
- Pens and markers
- Large sticky notes
- Chart paper

Annotated agenda

Table 4. Section 3: Identify research topics

| Agenda item | Description | Slides | Materials |
|---------------------------------------|---|--------|---|
| Identify research topics (30 minutes) | <ul style="list-style-type: none"> • Using the “Research topics” handout in the participation packets, participants take five minutes on their own to brainstorm topics that are potentially relevant to the organization's goals. • In small groups, share and discuss the topics you came up with individually, thinking about such things as relevance and importance. • Group members should write down topics on the large sticky notes and put them on the chart paper. • As one large group, everyone will discuss the topics and group them using an affinity grouping process. • When grouping is complete, participants will name topic groupings (facilitator will write names on chart paper). The groups will be topics, and the items listed in the group will be the subtopics. | 9–12 | Activity sheet: Research topics Pens and markers Large sticky notes Chart paper |
| Break (10 minutes) | | 13 | |

Section 4: Types of research and evidence

Purpose

This section defines different types of research and evidence so that participants know what kinds of projects can be included in the research agenda to answer their research questions.

Materials

- Slide deck: Slides 15–18 (appendix B)

Annotated agenda

Table 5. Section 4: Types of research and evidence

| Agenda Item | Description | Slides | Materials |
|---|---|--------|-----------|
| Types of research and evidence (30 minutes) | <ul style="list-style-type: none"> • Discuss types of research and evidence. • Define descriptive, correlational, and causal research, and provide examples, connecting to the types of questions each type of research can answer. | 14–17 | |

Section 5: Research questions and agenda

Purpose

This section begins with an overview of what kinds of research questions can be included in a research agenda. It then provides time for the group to develop and refine the questions to be included in their own research agenda.

Materials

- Slide deck: Slides 19–43 (appendix B)
- Activity sheet: Generating research questions (appendix F)
- Research agenda template (appendix G)
- Pens and markers
- Large sticky notes
- Small sticky notes
- Chart paper
- Dot stickers

Annotated agenda

Table 6. Section 5: Research questions and agenda

| Agenda Item | Description | Slides | Materials |
|---|--|-----------|---|
| Research questions and agenda overview (25 minutes) | <ul style="list-style-type: none"> • Define what a researchable question is: reasonable, appropriate, answerable, and specific. • Discuss how research topics and questions come together to form a coherent research agenda. • Provide examples of research agendas. | 18–23 | |
| Prioritize research topics (30 minutes) | <ul style="list-style-type: none"> • Discuss brainstormed ideas to clarify the topics, and allow participants to advocate on behalf of their ideas. • Using the listed topics on the chart paper, participants “vote” for three topics using dot stickers. • After canvassing, review the results and identify the top-rated topics. These will be the topics for which the group will generate research questions. | 24 and 25 | Chart paper Dot stickers |
| Lunch (45 minutes) | <ul style="list-style-type: none"> • Before participants come back from lunch, the facilitator writes each top-rated topic area at the top of its own piece of chart paper and puts them up throughout the room. | 26 | Chart paper |
| Generate research questions (40 minutes) | <ul style="list-style-type: none"> • Participants split into two groups and are assigned one or two topics. Groups use the “Generating research questions” activity sheet in their packets to discuss potential research questions that could fall under their assigned topic(s). • Groups write potential research questions under the appropriate topic on the chart paper. | 27–31 | Pens and markers Activity sheet: Generating research questions Large sticky notes |

| Agenda Item | Description | Slides | Materials |
|--|--|--------|-----------------------------------|
| Share and refine research questions (50 minutes) | <ul style="list-style-type: none"> Groups share out or read aloud their questions. Everyone reviews questions and writes suggested changes on small sticky notes. Participants place them next to the question on the chart paper. As one group, everyone can discuss how to edit, add, delete, and combine questions as necessary. | 32–35 | Small sticky notes Chart paper |
| Break (10 minutes) | | 36 | |
| Prioritize research questions (30 minutes) | <ul style="list-style-type: none"> Participants advocate for their preferred research questions, and the larger group identifies three to five questions for each topic area. Participants are given six dot stickers to place on research questions and vote for them. | 37–38 | Chart paper Dot stickers |
| Create research agenda (15 minutes) | <ul style="list-style-type: none"> Discuss the number, study type, and sequence of questions. Participants use the research agenda template in the participant packet to organize the research agenda. | 39–41 | Research agenda template |

Section 6: Next steps and adjournment

Purpose

This section outlines the next steps the research group will take in relation to its new research agenda.

Materials

Slide deck: Slides 42–44 (appendix B)

Annotated agenda

Table 7. Section 6: Next steps and adjournment

| Agenda item | Description | Slides | Materials |
|----------------------------|--|--------|-----------|
| Next steps (30 minutes) | <ul style="list-style-type: none">• Establish opportunities for regular review of the agenda.• Discuss the partnership strategy; research ideas and possible funding opportunities.• Allow participants time to ask final questions.• Provide contact information on final slide. | 42–44 | |

Appendix A. Sample agenda

Research agenda setting workshop

Month Day, Year

Location

Agenda

| Time | Session |
|-----------------------|--|
| 9:00–9:20 a.m. | Welcome and introductions |
| 9:20–9:45 a.m. | Overview of the organization |
| 9:45–10:15 a.m. | Identify research topics |
| 10:15–10:25 a.m. | Break |
| 10:25–10:55 a.m. | Types of research and evidence |
| 10:55–11:20 a.m. | Research questions and agenda overview |
| 11:20–11:50 a.m. | Prioritize research topics |
| 11:50 a.m.–12:35 p.m. | Lunch |
| 12:35–2:05 p.m. | Develop and refine research questions |
| 2:05–2:15 p.m. | Break |
| 2:15–2:45 p.m. | Prioritize research questions |
| 2:45–3:00 p.m. | Create research agenda |
| 3:00–3:30 p.m. | Next steps and adjournment |

Appendix B. Facilitator's presentation slides

Slide 1



(Facilitator prompts appear to the right of the slides).

Slide 2

Agenda

- Introductions and organization overview
- Identify and prioritize research topics
- Review types of research and evidence
- Develop and prioritize research questions
- Put it all together into a research agenda

Slide 3

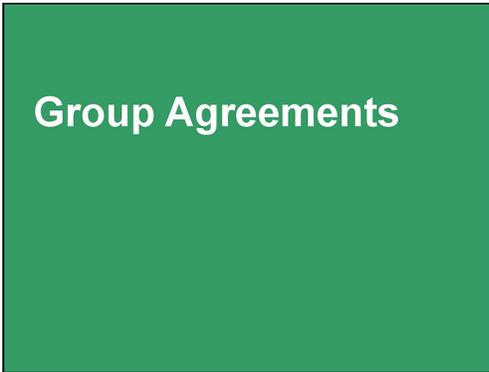
Introductions

- Name
- Where you work
- Your role
- Share a tip for working with you

Let's go around the room and introduce ourselves. Please share:

- Your name
- Where you work
- Your role
- Share a tip that will make it easier for others to work with you. This may be difficult to do as we seldom stop and reflect on our work habits. Take a minute to think about what's really important to you when you work in a group. It may be helpful to think about something that stops your participation.

Slide 4



Review the handout. Are there any others that people want to add?

Slide 5

About The Organization

Ex:
Cleveland Partnership for English Learner Success (CPELS) is a partnership facilitated by REL Midwest.

REL Midwest is part of a network of 10 regional educational laboratories funded by the U.S. Department of Education's Institute of Education Sciences (IES). REL Midwest serves seven states throughout the upper Midwest and focuses on the national priority of helping states and districts use data and analysis to address important policy and practice issues with the goal of improving outcomes.

Partnerships are tasked with addressing various challenges through research, technical assistance, and engagement projects.

Review the structure and members of the organization creating the research agenda today.

Slide 6

Partnership Goal

Ex:
CPELS will leverage existing data from the district to:

- 1) Increase the district's capacity to access, conduct, interpret, and make sense of research on English learner (EL) success.
- 2) Support the use of EL research in decision making at the school and district levels.

Specifically, partnership members will use research to understand and address the needs of a growing and increasingly more diverse EL student population in the district, including how this group of students has changed over time, determining what factors are associated with academic success, and identifying, implementing, and improving practices aimed at increasing EL student success.

Let's start by reviewing our organization's goal, mission, or purpose. Does it make sense? Should we add or remove any language?

Slide 7

Today's Purpose

- Engage in a collaborative process.
- Identify research priorities.
- Develop a set of research questions.
- Develop a coherent research agenda for the next three to five years.

Our purpose for coming together today is to engage in a collaborative process where we identify research priorities and develop a set of research questions aligned to these priorities. Together, these questions will comprise a coherent research agenda that will guide our work in the next three to five years.

Slide 8

Today's Goals

- Review different types of research.
- Identify and prioritize research topics.
- Generate related research questions.
- Refine and prioritize research questions to form the initial research agenda.

Slide 9

Identify and Revisit Possible Research Topics

Slide 10

Goals and Research Topics

Record on your handout:

- Topics that fit under your alliance's goal
- If you are unsure of a topic, include it in the "possible" column.

Focus on topics that are most important to you.

You will have five minutes to think and write by yourself.

Our first task today is to identify some possible research topics that are relevant to our organization's goal. We are going to first work individually and then in small groups.

First, look at your research topics handout. Working on your own, take five minutes to brainstorm topics that are potentially relevant to the goals. You will see the worksheets divided into two columns: Use the left column to list topics that you think fit under the goals, and use the right column to list topics that you think **might** fit under the goals.

Don't worry right now about the grain size of your topics—we will revise and narrow the topics later.

Slide 11

Small-Group Discussions

- Break up into small groups.
- On large sticky notes, write down the topics your group would like considered as priority topics.



Now, in small groups, we will share and discuss the topics we came up with individually, thinking about relevance and importance. Again, you don't need to worry at this point about the grain size of the topic; it's okay if some are narrow and some are broad.

Group members should write down topics on the large sticky notes. These will be shared with the whole group, which will then group the topics.

Slide 12

Grouping Topics

What topics generated in the groups go together?

Review the topic groupings and name them.



**Items grouped under each topic name are now considered subtopics.

[Bring the small groups back together, have participants put the sticky notes on the wall, and review the topics as a whole group. This is not a discussion but simply a review of what is written on the sticky notes.]

Together, we will group our topics using an affinity grouping process; everyone will have a say. Now that we've had a chance to review the topics listed, does anyone have ideas about which topics are "alike" or kind of go together? Do any seem to be the same thing? Can someone help me by moving the sticky notes around per the discussion?

Let's see how many topic groups we have. Do we have any that don't seem to go with anything else? That's okay; they can be a group by themselves.

Before we continue, let's review our grouping and see if we need to make more changes to it.

[When satisfied, we can name our topic groupings.] Now that we have grouped our topics, let's "name" the groups. This will be the topic and the items listed in the group will be the subtopics.

Slide 13

Take a Break



Slide 14

Types of Research and Evidence

For the next little while, we will step back from the particular topics of interest and the agenda, and we will focus on research in general, as well as on research questions and agendas in general.

First, here's a brief overview of different types of research. There are many ways of organizing types of research. One type of research is not necessarily better than the other. The organizations that we use will allow us to answer different types of questions, and will have more or less certainty in the information that we find.

We think it's important to review information on different types of research because it may inform the types of questions we ask or possibly the sequence of our work.

Slide 15

Research Type: Descriptive

- Examines trends, baselines, or experiences of individuals, groups, or programs
- Cannot determine cause and effect
- Cannot explain why something is happening
- Often used as a baseline
- Can be qualitative or quantitative

Example descriptive research questions:

- What is the trend in science test scores over the past three years?
- What are the features of district teacher evaluation systems?
- What are the certification characteristics of new teachers in the state?
- What does the research say about teacher preparation programs?

The results are usually descriptive statistics for quantitative data, or synthesis of qualitative data, such as the interview findings or findings from the literature review.

A literature review, for example:

- Provides information on what is known about a topic and what is not known.
- Provides information on why certain questions are difficult to answer.

Slide 16

Research Type: Correlational

- Looks at the relationships among two or more variables or characteristics, but does not imply that one causes another
- Tests whether relationships among variables are "statistically significant," meaning they are not likely due to chance
- Among the methods: analysis of existing data from administrative or other state, district, or school datasets

Another type of research is correlational research. It's about connections but not causality. This type of research explores the relationships and trends among two or more variables.

For example, a correlational study may examine how students' math course-taking patterns vary by race and gender. Although the results may show that course-taking patterns differ by race and gender, they cannot prove what causes the differences. This type of research is often showcased in the media, where causality is suggested. For example, a headline could read "Moderate consumption of red wine promotes a longer lifespan."

This does not necessarily mean that if we drink red wine we live longer. Perhaps, people who drink red wine have healthier lifestyles.

Correlational research can use primary or secondary data analysis. In education research, we frequently see secondary data analysis of school, district, or state data.

Statistical techniques test for relationships among two or more variables or differences among two or more variables. These techniques include difference in means testing, analysis of variance (ANOVA), and regression techniques.

Example questions:

- How do math course-taking patterns vary by race and gender?
- What factors are related to differences in graduation rates across districts?
- Others?

Slide 17

Research Type: Causal

- Examines questions about the impact of a policy, program, or practice
- Builds on descriptive and correlational studies
- Uses the most rigorous methodology

These studies use the most rigorous research methodology that allows us to isolate the effect, or impact, of what we are studying (e.g., teaching practice, new curriculum, policy). They can be small scale or large scale.

Includes randomized controlled trials, which are considered the gold standard.

Many educational practices—such as the piloting of a new curriculum or program, using a lottery for admission—provide opportunities for this type of research.

Example questions:

- Do teacher evaluations have an impact on classroom practice?
- Do teacher evaluations have an impact on student achievement?
- Do teacher evaluations have an impact on teacher retention?

For example, with the teacher retention question, we could randomly assign some schools to use the new evaluations and some to business as usual.

Classroom practice question: Teachers who score low are randomly assigned to receive mentorship.

Slide 18

Research Questions and Agenda Overview

Earlier today, we identified some possible research topics. A research topic is a general statement about the research interest (e.g., the impact of early education on later achievement).

A research question, by contrast, is more specific and gives us an idea about the method or approach used and what exactly was studied. Descriptive and correlational questions tend to be “How” or “What is” questions, whereas impact or causal questions tend to ask “Does...” For example, “Does participating in this program change behavior or increase knowledge?”

Slide 19

Researchable Questions

What is a researchable question?

- Reasonable
- Appropriate
- Answerable
- Specific

Some guidelines about research questions include:

- They are reasonable. That is, exploring the research questions is doable, given the time and budget.
- They are appropriate. The research question or questions fit with the program or issue being studied; in this case, the questions fit with the goals or purpose.
- They are answerable. This means that appropriate data can be gathered or found that will actually answer the question or questions.
- They are specific. This means they include clearly defined and measurable indicators of success or the desired outcome.

Research questions are more difficult to generate than topics. And you might not immediately know if your questions are answerable or measurable. Sometimes, we need to do preliminary work or investigating to determine whether a question is researchable.

Slide 20

Researchable Questions

Where do researchable questions come from?

- Questions, concerns, and values of stakeholders
- Important issues in the field or research literature
- Professional standards or guidelines
- Views and knowledge of experts
- One's own views and judgment

Research questions come from many places:

- Issues or questions from stakeholders or the community
- Previous research or the literature
- Views of experts
- Professional standards and guidelines
- Your own experiences and views

Slide 21

Research Agendas

What is a research agenda?

- Identifies research priorities and questions for the group
- Is coherent
- Leads to rigorous and relevant research that is actionable
- May include current or future projects

What does a research agenda look like?

- Linear
- Topical

For our purposes here, we define a research agenda as two to four focused research topics, each with a set of three to five coherent research questions that will help to achieve the goals. A research agenda also can include a set of possible studies or projects that align with the research questions.

Essentially, a research agenda identifies the research priorities for the group and can be specific enough to include questions and possible studies that provide a direction or path for the group's work.

There is no right way to organize an agenda. Research agendas can be linear or topical.

Slide 22

Example: Coherent Linear Research Agenda

Topic: High school graduation

Research questions:

- What are the high school dropout rates for key subgroups of students?
- What are the effects of alternative high school programs on students' degree completion and graduation?

Studies:

- Descriptive study of high school dropout rates for key subgroups
- Descriptive study of reenrollment rates in traditional high schools and educational trajectories of reenrollees
- Randomized controlled trial (RCT) of the impact of alternative programs for degree completion on high school graduation

This is an example of a coherent linear agenda. This agenda is linear because the studies build on one another, with one being completed before the next is undertaken.

Slide 23

Example: Coherent Topical Research Agenda

Topic: Mathematics learning

Research questions:

- What is the impact of grade 8 students' access to Algebra I on their mathematics achievement?
- How do students with disabilities perform in mathematics?

Studies:

- RCT of the impact of student access to Algebra I in grade 8
- Descriptive study of mathematics education practices for students with disabilities
- Descriptive study of mathematics performance patterns for students with disabilities

Research agendas also can be coherent and arranged more topically rather than sequentially or linear, as this example indicates.

Slide 24

Prioritize Research Topics

Reference: List of grouped affinity topics.

Now that we've reviewed different types of research, and learned about research questions and agendas, we are going to return to the possible research topics that we identified earlier this morning. Specifically, we are going to narrow the list of topics to identify two to four PRIORITY research topics.

Slide 25

Process

1. Brainstorm the topics: Done!
2. Clarify: Clarify the topics by asking questions, reviewing our affinity groupings, and making any necessary changes.
3. Advocate: Participants have an opportunity to advocate, in a brief positive way, for a topic. We are not arguing against topics!
4. Canvass the group to see where interest lies.

We will get to these priority topics using these four steps:

- Brainstorm the topics: We have already done this.
- Clarify: Clarify the topics by asking questions, reviewing our affinity groupings, and making any necessary changes.
- Advocating: Participants have an opportunity to advocate, in a brief positive way, for a topic. We are not arguing against topics!
- Canvass the group to see where interest lies.

Let's begin with clarifying as we have already brainstormed our topics.

Facilitator works through clarifying and advocating with participants.

Keep advocate part short—no more than two minutes for advocating and then a few minutes for questions.

The topics should be posted around the group or listed on chart paper. Give each participant three 'sticky' dots to use to indicate their preferences. Ask participants to place sticky dots next to their topic or topics they believe should be the research priorities. Note that they can spread their dots among two or three topics or even use all three on one topic.

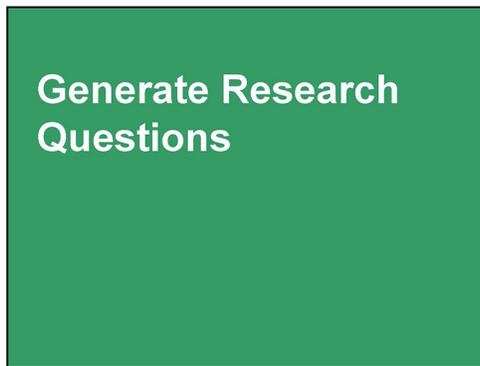
*May want more or fewer dots for voting depending on how many topics we end up with.

After canvassing, take a few minutes to review the results and identify the top-rated subtopics that fall under the topic. These will be the topics for which the group will generate research questions.

Slide 26



Slide 27



Reference: List of prioritized topics

Handout: Generating research questions activity sheet

Now that you have identified your priority research topics, we will move to generating research questions for the topics. We have already reviewed the characteristics of good research questions, but we also want to quickly review how one can move from topics to subtopics to research questions.

Slide 28

Example: Gender in Schools

Goal: Provide research that informs and promotes gender equity in schools.

| Topic | Subtopic | Questions | Timing |
|---|---|-----------|--------|
| Girls in science, technology, engineering, and mathematics (STEM) | Tracking achievement differences | | |
| | Encouraging interest and enrollment in STEM | | |
| | Persistence in STEM majors | | |
| Attainment for boys | | | |
| Structured inequality | | | |

This slide shows an example of a group focused on gender in schools. Some of the priority topics this group identified include *girls in STEM*, *attainment for boys*, and *structured inequality*. These topic areas are pretty broad and could lend themselves to many different foci and research paths. So, we have identified subtopics. The subtopic examples provided here fall under the *girls in STEM* topic.

Slide 29

Moving From Subtopics to Questions

| Subtopic | Questions | Timing |
|---|--|--------|
| Tracking achievement differences | What are gender differences in STEM achievement in K-12 and how have they changed over time? | |
| | Do gender differences in STEM achievement vary among districts and schools? | |
| Encouraging interest and enrollment in STEM | What can teachers do? | |
| | Are single-sex schools and classrooms better? | |
| | What programs help promote STEM for girls? | |
| Persistence in STEM majors | | |

This slide shows specific questions that were developed for the *girls in STEM* subtopics. You can see that the subtopics each have multiple questions and different types of questions, with different levels of specificity.

What could be a research question for the last subtopic:

- Are there gender differences in persistence in STEM majors?
- Are there gender differences in the completion of STEM majors?

Slide 30

Moving From Subtopics to Questions

| Subtopic | Questions | Timing |
|---|---|--------|
| Tracking achievement differences | What are gender differences in STEM achievement in K-12 and how have they changed over time? Do gender differences in STEM achievement vary among districts and schools? | |
| Encouraging interest and enrollment in STEM | What can teachers do? Are single-sex schools and classrooms better? What programs help promote STEM for girls? | |
| Persistence in STEM majors | | |

Here, we see the same subtopics and questions. Although all are research questions, they represent different types of research questions. Some are fully specified research questions and some are more general.

We don't expect the questions generated today to be necessarily fully specified. General research questions will be sufficient for us to work with to develop a set of fully specified questions. As we move to generating questions for our research topics, we don't want you to get hung up on developing fully specified questions; if you come up with some, great, but, if not, the general research questions will be helpful in later development of more specific questions.

For example:

What are gender differences in STEM achievement in K-12 and how have they changed over time? This is a fully specified research question.

What can teachers do? This is a general question that can be used to develop a set of more specific research questions.

Slide 31

Generating Research Questions

In small groups, work for 30 minutes to generate research questions related to identified priority research topics.

Think about the following:

- What are some possible research questions for these topics?
- What data would be needed to research these questions?

Handout: Generating research questions activity sheet

Now, we will dive into our priority topics and begin to generate research questions. Work in small groups to generate research questions for the priority research topics.

In small groups, discuss potential research questions that could fall under each topic. Use the activity sheet to keep track of the questions you develop. Save some time at the end to write the questions you generated on chart paper. We will be sharing the chart paper in the next segment.

Have groups post their chart paper of questions around the room, grouped by topic.

Slide 32

Share Questions

Reference: List of questions by topic displayed on chart paper around the room.

Slide 33

Sharing Questions

Review the posted questions and consider:

- What would you change or edit?
- What would you delete?
- What would you add?
- What kinds of studies would result from the questions (descriptive, correlational, or causal)?
- Briefly discuss with a partner.

Let's take 10 minutes to walk around the room looking at the questions posted on the chart paper that each group generated. Write changes on sticky notes to put on chart paper. As you walk around, think about the questions and consider what changes you might make to questions. Are there any that you don't think are necessary? Is anything missing?

After we review the questions on chart paper, we'll discuss our observations briefly with a partner, and then we'll have opportunities to revise the questions.

*For partnering, suggest participants find someone they haven't worked with yet.

Slide 34

Refine Questions

Reference: The list of questions by topic and subtopic

Slide 35

Refining Questions

Whole group:

- Edit, add, delete, and combine questions as necessary (and write down your changes).
- What kinds of studies would result from the questions (descriptive, correlational, or impact)?
- What questions are important to you?
- What research topic and questions can provide a meaningful research agenda?

Together, we will review and refine the questions so that we have a good list from which we can identify our research questions and create a research agenda.

For 15 minutes, discuss:

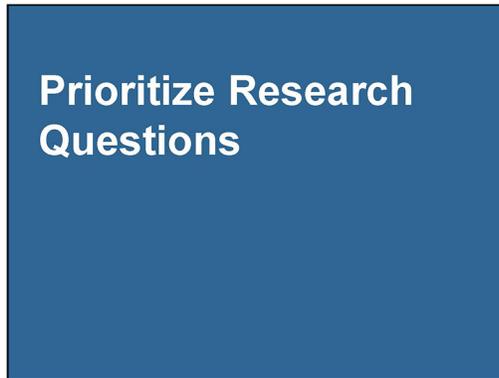
- What did you think of the questions?
- What suggestions do you have for editing the questions?
- Are there any that are essentially the same and can be grouped together?

Are there any that should be added or deleted?

Slide 36



Slide 37



Reference: Refined questions

Our list contains more questions than we could realistically focus on, so we will prioritize our research questions to form a research agenda. We will run through this process separately for each of the priority research topics for which we generated questions.

Slide 38

Prioritizing Research Questions

Prioritize the research questions in each priority subtopic area.

- Advocate
- Canvass

We have already brainstormed and clarified.

Let's take a few minutes for the advocating step. Let's hear from you about questions that you think should be part of the research agenda.

Advocate rules:

- Participants may advocate for as many items as they wish and as many times as they wish.
- Statements of advocacy must be phrases in the positive.
- Statements of advocacy must be brief.

Let's now canvass the group to identify the three to five questions for that topic area.

Each participant gets six dots. The dots are your votes and will help us figure out our focus for the research agenda.

Slide 39

Put It All Together Into a Research Agenda

Slide 40

Preliminary Research Agenda

Review identified priority topics and questions.

- Any surprises?

How many top-rated questions should be on the agenda? Consider the following:

- Alliance goal
- Types of research
- Sequence
- Short- and long-term nature of questions

Let's review the result of our canvassing.

[Read out the questions in order of identified priority.]

Any surprises?

Let's think about how many questions we should include on our agenda per topic. Thoughts?

Do we have a good mix of study types? What is the best sequence for this work?

Let's look now at the research agenda template.

Slide 41

Research Agenda Template

Look at the research agenda template.

Use the template to organize the research agenda.

Document and summarize the main research topics, subtopics, and questions.

Let's use the template to summarize our work today.

We can fill in the main topics and subtopics that we prioritized.

Then, we can list the top three or four questions for each area that we just prioritized.

[If there is not time to complete this template together at the workshop, the facilitator should show the template, and note he/she will complete it based on the workshop notes and will share it with participants in the near future.]

Slide 42

Next Steps

We've done a lot today. We have identified our priority research topics and the main questions we have for each of these topics; together, these comprise a coherent research agenda that will guide our work. However, we should not see the agenda as static. We will want to revisit it over time, especially as new research and information become available.

Slide 43

Next Steps

- Create a summary document from the workshop.
- Establish opportunities for regular review and refinement of the agenda.
- Utilize the agenda as a "living document."
- Collaborate to:
 - Identify other areas of funding
 - Develop one-pagers about the partnership and specific studies.

Now comes the hard but also the fun part: developing a study or identifying research supports to carry out the studies indicated in our agenda.

Slide 44

Thanks!

Trainer's name, email@gmail.com

Appendix C. Group agreements

Establishing group agreements

Purpose

When groups experience conflict and frustration, it is most often the result of unstated assumptions and unfulfilled expectations. Group agreements anticipate such misunderstandings and make expectations explicit. When members know what to expect of one another, their energy can be directed toward their work, they can share responsibility for making sure the agreements are followed, and they can reinforce trust. These agreements will help us develop a research agenda today.

Starter set

- We start and end on time.
- We promise to be fully present (turn phone ringers off).
- We will be prepared and accountable.
- We disagree with respect and curiosity.
- We each help the group stay on task and avoid side conversations.
- We honor each person's right to pass.
- We listen attentively and let others finish their thoughts.
- We presume positive intentions.
- We pursue a balance between advocacy (making our own thinking clear to others) and inquiry (asking questions to clarify another person's thinking).
- We regularly request, accept, and respond to feedback.
- We seek a way around obstacles; we reframe from "We can't" to "How can we?"
- We share "air time" and ensure that all voices are heard.
- We suggest realistic actions and ideas and still give ourselves permission to dream big.
- We each take care of our own creature comforts.
- We value and encourage creativity.
- We celebrate our accomplishments.
- We have fun.

Others

You may want to consider including shared expectations about attendance, meeting participation, confidentiality, agendas and records, and how decisions are made.

Appendix D. Organization goal template

Organization's goal

[INSERT YOUR ORGANIZATION'S FORMAL OR INFORMAL GOAL/MISSION/VISION HERE.]

Example:

The Cleveland Partnership for English Learner Success will leverage existing data from the district to:

- Increase the district's capacity to access, conduct, interpret, and make sense of English learner (EL) research, and
- Support the use of EL research in decision making at the school and district levels.

Specifically, partnership members will use research to understand and address the needs of a growing and increasingly more diverse EL student population in the district, including examining how this group of students has changed over time; determining what student- and school-level factors are associated with their academic success; and identifying, implementing, and improving practices aimed at increasing EL student success.

Appendix E. Activity sheet: Research topics

Work independently for five minutes to list research topics that fit under our partnership goal. Categorize your list by the two-column headings.

| Topics that definitely fit under goal | Topics that possibly fit under goal |
|---------------------------------------|-------------------------------------|
| | |

Appendix F. Activity sheet: Generating research questions

Please spend time thinking about the prioritized research topics. Consider research questions that you feel will be important for our partnership to work on and note them below. Then, think about what data would be needed (and are available) to investigate these questions and what type of study design (descriptive, correlational, or causal) would be indicated by your questions.

Priority topic 1: _____

| Questions | Type of study | Data available |
|-----------|---------------|----------------|
| 1. | | |
| 2. | | |
| 3. | | |

Priority topic 2: _____

| Questions | Type of study | Data available |
|-----------|---------------|----------------|
| 1. | | |
| 2. | | |
| 3. | | |

Priority topic 3: _____

| Questions | Type of study | Data available |
|-----------|---------------|----------------|
| 1. | | |
| 2. | | |
| 3. | | |

Priority topic 4: _____

| Questions | Type of study | Data available |
|-----------|---------------|----------------|
| 1. | | |
| 2. | | |
| 3. | | |

Appendix G. Research agenda template

[INSERT YOUR ORGANIZATION'S NAME HERE]: Research agenda

The [ORGANIZATION] has identified the following goal: [INSERT GOAL LISTED ABOVE].

To work toward that goal, the organization engaged in discussions to develop a shared research agenda that would guide current and future projects and, more specifically, define the direction of the organization. The research agenda outlined below is designed as a roadmap for organization work so that projects are directly useful to organization members, supply research that informs policy and practice, and increase the capacity of organization members to conduct and use research. To that end, [THE ORGANIZATION] identified the following topics as areas of focus for its work for the next three to five years.

[Topic area 1]

[Provide a one-paragraph description that summarizes this topic area and the possible subtopics of interest.]

[Topic area 2]

[Provide a one-paragraph description that summarizes this topic area and the possible subtopics of interest.]

[Topic area 3]

[Provide a one-paragraph description that summarizes this topic area and the possible subtopics of interest.]

Next steps for the partnership

- Continue an iterative review and refinement of the agenda.
- Become collaboratively involved study prioritization and development.
- Identify existing data or collect data for proposed studies.
- Review the research literature relevant to priority topics and questions.
- Oversee the research study or identify research support.

Research agenda for [topic area 1]

| Subtopic | Questions | Project | Data availability | Timing |
|----------|-----------|---------|-------------------|--------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Research agenda for [topic area 2]

| Subtopic | Questions | Project | Data availability | Timing |
|----------|-----------|---------|-------------------|--------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Research agenda for [topic area 3]

| Subtopic | Questions | Project | Data availability | Timing |
|----------|-----------|---------|-------------------|--------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



REL Midwest at American Institutes for Research
10 South Riverside Plaza, Suite 600
Chicago, IL 60606
312.288.7600 | RELMidwest@air.org