Idaho Career and Technical Education

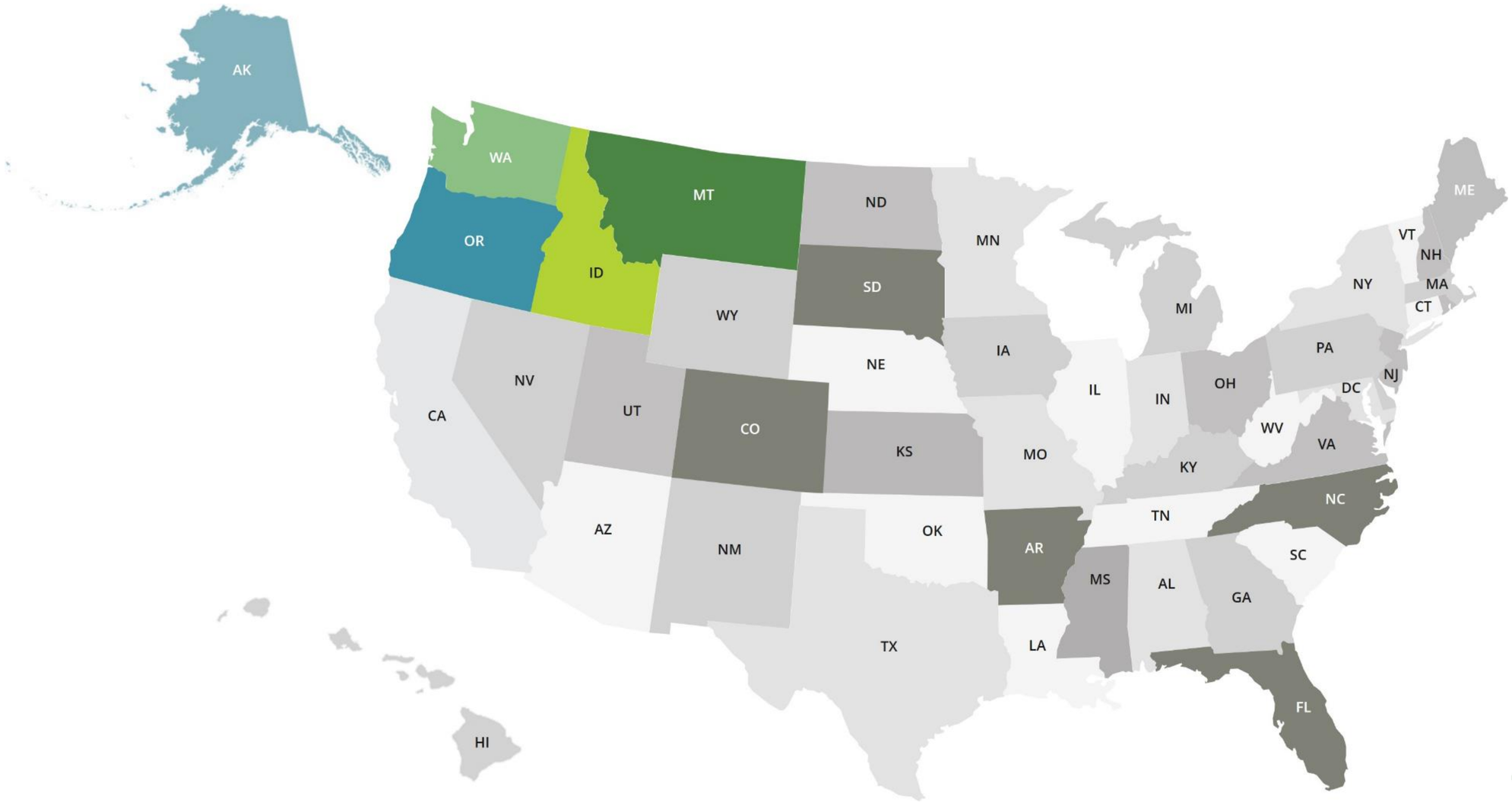
Data Collection Training: Survey and Focus Group Design

Hella Bel Hadj Amor, Ph.D.
Steve Klein, Ph.D.

April 8, 2019

REL NORTHWEST
Regional Educational Laboratory

Our Region



REL NORTHWEST

About REL Northwest

Regional educational laboratories (RELs) partner with practitioners and policymakers to use data and evidence to help solve educational problems that impede student success. We do this by:

- Conducting rigorous research and data analysis
- Delivering customized training, coaching, and technical support
- Providing engaging learning opportunities

REL NORTHWEST

Goal and Objectives

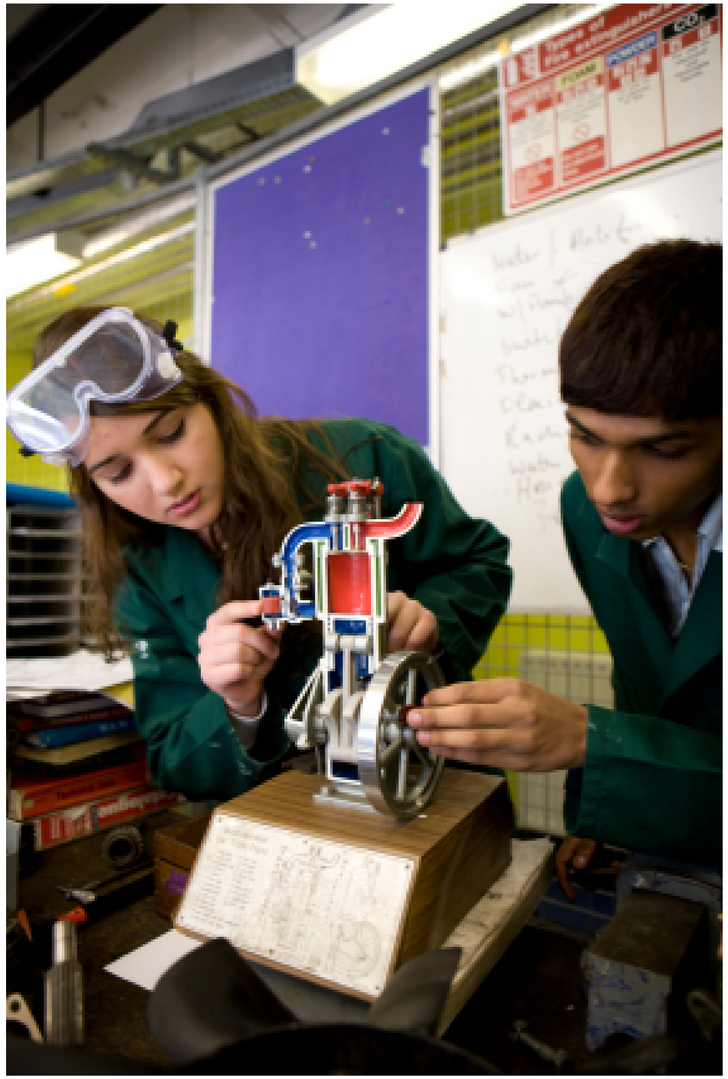
Today's goal is to learn how to design surveys and focus groups

Objectives

- Become familiar with elements to consider when designing a survey
- Improve and add to the current draft survey
- Be ready for steps that will inform implementation
- Understand the purpose and uses of focus groups
- Learn the steps involved in focus group planning
- Begin drafting focus group questions for inclusion in a facilitator guide

Sources: Irwin & Stafford, 2016; Pazzaglia, Stafford, & Rodriguez, 2016a; Pazzaglia, Stafford, & Rodriguez, 2016b; Walston, Redford, & Bhatt, 2017

REL NORTHWEST



Agenda

1. Purpose
2. Survey planning
3. Drafting survey items
4. Survey implementation considerations
5. Goals of focus groups in this project
6. Recruiting focus group participants
7. Facilitating focus groups
8. Closing and next steps

Sources: Harlacher, 2016; Irwin & Stafford, 2016; Pazzaglia et al., 2016a,b; Walston et al., 2017

REL NORTHWEST

Planning

Goal of the survey and how findings will be used

To understand the landscape of career exploration in grades 7 and 8 throughout Idaho

To inform the development of a middle school career exploration program to implement, monitor, and improve on as part of a pilot in 2019–20 prior to statewide implementation in 2020–21

Source: Idaho Career and Technical Education and REL Northwest planning calls

REL NORTHWEST

Audience and Research Questions

- Audience
  - Idaho Career and Technical Education (ICTE) staff members designing and implementing the pilot
  - Pilot participants
  - Who else?
- Brainstorm
  - What do you want to know?
  - What might pilot participants want to know?
  - What might other audiences (if any) want to know?

Source: Idaho Career and Technical Education and REL Northwest planning calls

REL NORTHWEST

Constructs

- Definition
- Examples
  - Career
  - Career exploration
  - Career and technical education (CTE)
  - CTE program of study
- Additional constructs?
- Additional research questions?

Source: Idaho Career and Technical Education and REL Northwest planning calls

REL NORTHWEST

From Research Questions to a Survey

Research question

EXAMPLE:

- How is participation in career exploration activities related to our high school students' academic engagement?

Survey items

EXAMPLES:

- What are the types of activities available?
- What is the type of participation?
- In how many different activities do students participate?
- How much time per week do they spend in activities?
- How many school years are students involved in the activity?

Survey

- Item 1
- Item 2
- Item 3

Source: Walston et al., 2017

REL NORTHWEST

Properties: Reliability

Reliability is the consistency with which a set of items measures an attribute

- Same interpretation by all respondents
- Same understanding at different points in time
- Elements of each construct are adequately covered
- Items measuring the same construct are answered consistently (e.g., if item 1 is answered yes, item 2 should also be answered yes)

Unreliable items → Inconsistent responses across time and respondents → Measurement error

Source: Walston et al., 2017
Image source: https://pixabay.com/fr/vectors/fl%C3%A9chettes-dart-jeu-oeil-de-boeuf-155726/

REL NORTHWEST

Properties: Validity

Validity is the extent to which the inferences made based on survey responses are accurate and meaningful

- Results that accurately reflect the measured constructs and the target population
- Measures what we intend to measure (e.g., a question on student perceptions of school safety must accurately measure student perceptions of safety in the school and not safety elsewhere)

Invalid items → Inaccurate meaning of the construct → Measure the wrong thing

Source: Walston et al., 2017
Image source: https://pixabay.com/fr/vectors/fl%C3%A9chettes-dart-jeu-oeil-de-boeuf-155726/

REL NORTHWEST

Sample

- Who can describe practices?
  - Superintendents
  - Secondary directors
  - CTE coordinators
  - Middle school administrators
  - Counselors
  - Teachers (content?)
  - Who else?

- What comparisons might be of interest?
  - Region
  - Urban/rural
  - What else?

- What is the unit of analysis? What do we want to make statements about?

Sources: Idaho Career and Technical Education and REL Northwest planning calls; Walston et al., 2017

REL NORTHWEST

Sample: Considerations

- Population vs. sample
- Sampling
  - Definition
  - Random vs. convenience sample
  - Feasibility
- Sample size
  - Considerations
  - Power analyses

Sources: Pazzaglia et al., 2016a; Walston et al., 2017

REL NORTHWEST

Drafting Survey Items

- Adapt existing items or write items
- Adapting
  - Why?
  - Sources

Sources: Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Working Session

- Go back to draft research questions
- Place under each research question the items you drafted
- Review one of these surveys
- Add some relevant items from this survey under the relevant research question
- Write one or two more survey items under a research question where there is a gap
- Discuss/improve

10-minute break

Sources: Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Properties of Quality Survey *Items*

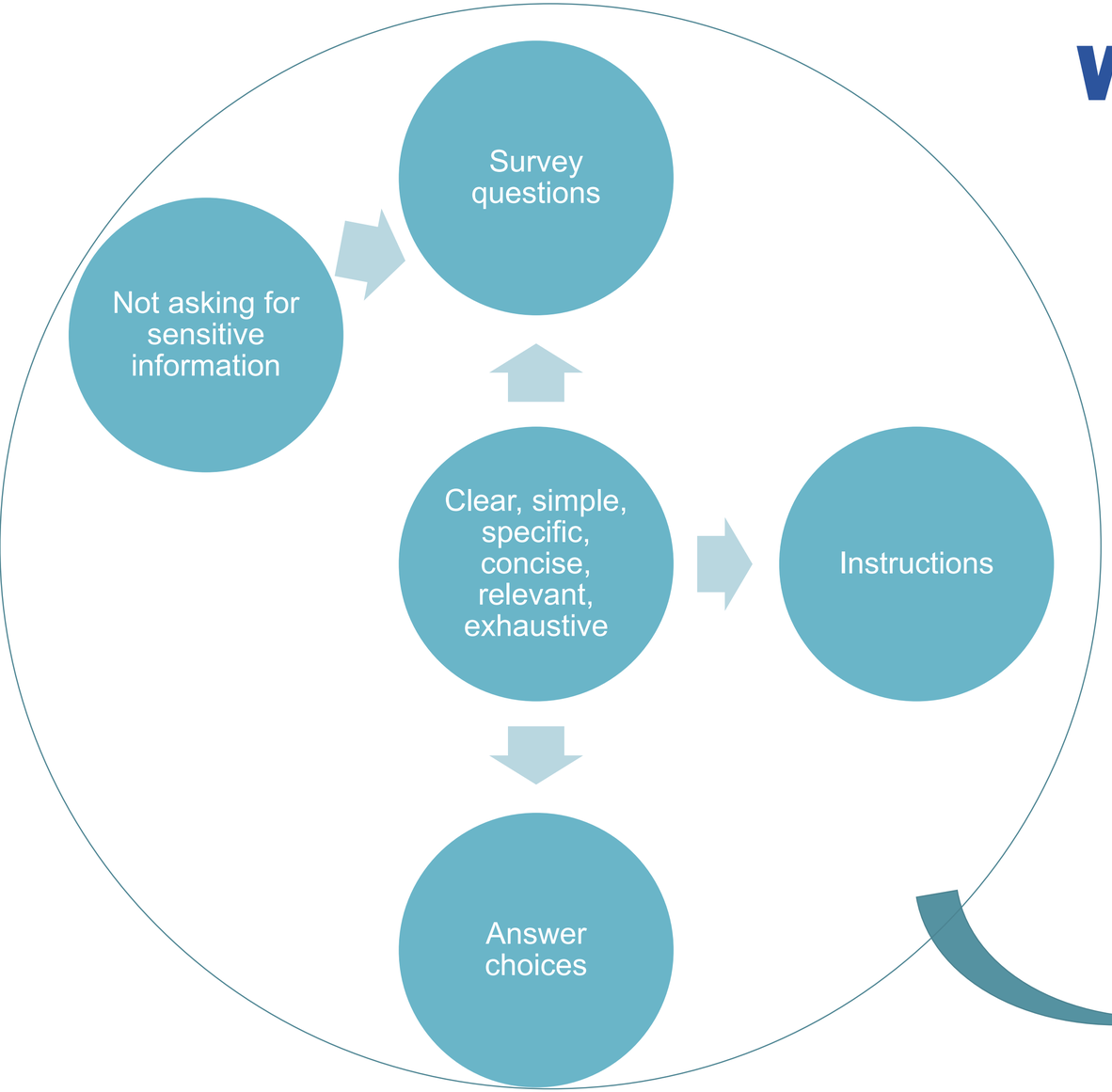
- We introduced reliability and validity as properties of quality surveys
- In the process of designing quality surveys, we need to design quality individual survey items

Why?

Sources: Artino, Gehlbach, & Durning, 2011; Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

What Makes a Survey Item "Good"



- All respondents can formulate an answer
- All respondents can figure out how to record their answers
- Respondents are more likely to answer
- There will be less measurement error

- Review/improve

Sources: Artino, Gehlbach, & Durning, 2011; Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Specific Questions

Provide enough details for consistent interpretation of an item

For example, people could interpret **"Do you work full time?"** *differently*

Instead

"About how many total hours per week do you usually work for pay, counting all jobs?"

- Is more consistently interpreted
- Allows for multiple options for analyzing the answers (e.g., looking at those who work more than 30, 35, or 40 hours per week)

Sources: Artino, Gehlbach, & Durning, 2011; Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Definitions Where Necessary

- If you are not sure that all respondents will interpret a term as you intend, provide a definition, for example:
  - Career
  - Career exploration
  - CTE
  - High school CTE program of study
  - Career fair
  - Internship
  - What else?

Refer to the constructs we discussed earlier

Sources: Artino, Gehlbach, & Durning, 2011; Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Directions Where Necessary

Examples:

- Select all that apply.
- Select only one response.
- Round to the nearest whole number.
- Do not include courses you took in middle school in your total count.

Sources: Artino, Gehlbach, & Durning, 2011; Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

One Concept Per Question

Do you offer CV writing and job interview role-play activities in grade 8?

Do you offer CV writing activities in grade 8?

Do you offer job interview role-play activities in grade 8?

Each item should represent a unidimensional concept

Sources: Artino, Gehlbach, & Durning, 2011; Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Positive Response Items

NOT

Youth job fair trips are not valuable career exploration activities for middle school students.

BUT

Youth job fair trips are valuable career exploration activities for middle school students.

Sources: Artino, Gehlbach, & Durning, 2011; Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Categories Should Not Overlap

NOT

How many summer enrichment camps do you offer middle school students?

- None
- 1 to 2
- 2 to 3
- 3 or more

BUT

How many summer enrichment camps do you offer middle school students?

- None
- 1
- 2
- 3
- More than 3

Sources: Artino, Gehlbach, & Durning, 2011; Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Categories Should Include All Possible Options

NOT

How many summer enrichment camps do you offer middle school students?

- 1
- 2
- 3

BUT

How many summer enrichment camps do you offer middle school students?

- None
- 1
- 2
- 3
- More than 3

Sources: Artino, Gehlbach, & Durning, 2011; Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Survey Implementation Considerations: Pretesting

- Why?
- Who?
- What …
  - Questions do we ask?
  - Do we ask them to do?
- How?

Sources: Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Pretesting: How

- Options
  - Cognitive interviews
  - Focus groups
  - Field-testing
- How do we pick?
- Brainstorm
  - Approach
  - Content

Sources: Harlacher, 2016; Irwin & Stafford, 2016; Walston et al., 2017

REL NORTHWEST

Survey Administration

- Mode: Online (self-administered)
- Online tool: Survey Monkey
- Point of contact
  - IT staff members? Are they expecting this?
- Advertising the survey
- Data security and confidentiality
  - Disclaimer at beginning of survey?
- Response rates ➔

Sources: Harlacher, 2016; Pazzaglia et al., 2016a; Walston et al., 2017

REL NORTHWEST

Response Rates

- What they are
- Why we care
- What a high response rate is
- How we can try to increase response rates

Brainstorm: Select strategies to increase response rates

- What non-response bias is and how we handle it

Sources: Pazzaglia et al., 2016a; Walston et al., 2017

REL NORTHWEST

Next Steps

- Finalize the survey
  - Finish adding relevant items from existing surveys under the relevant research questions
  - Identify gaps
  - Draft survey items to fill gaps
  - Review and improve
- Review for visual design
- Pretest and revise
- Administer
- Create an analysis plan

Do *not* send us the data!

Sources: Artino & Gehlbach, 2012; Harlacher, 2016; Pazzaglia et al., 2016b; Walston et al., 2017

REL NORTHWEST

Focus Group Design Goals

- Focus groups can be used to:
  - Help design a survey
  - Pretest survey items
  - Collect new information — here, on what career exploration in the middle grades can/should look like
    - This includes processing survey findings
- This training focuses on the latter and can be adapted easily if we decide to implement focus groups to pretest survey items

Sources: Irwin & Stafford, 2016; Powell & Single, 1996; Walston et al., 2017

REL NORTHWEST

Goals for the Focus Groups

- How we will use the information
  - To design August trainings for pilot sites
  - To design the pilot
  - Other?
- Who is the audience?
  - Same as for the survey?
- Brainstorm: What do we want to learn?

Sources: : Idaho Career and Technical Education and REL Northwest planning calls

REL NORTHWEST

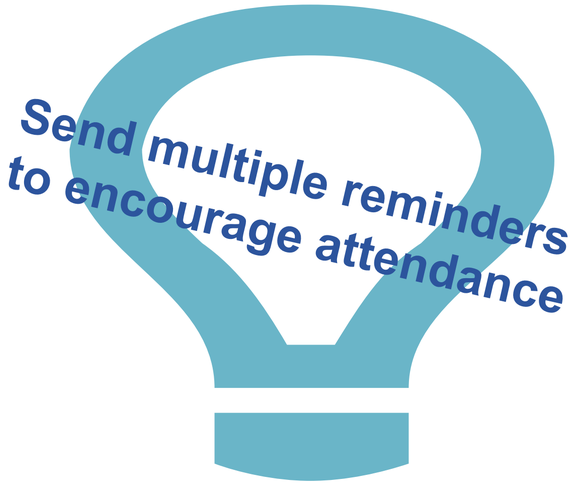
Recruitment

- Who should be there?
  - Roles
  - Categories represented
- How many?
  - Common practice is six to 10
  - If 25 ➔ Heterogeneous groupings ➔ Plan accordingly

Sources: Irwin & Stafford, 2016; Powell & Single, 1996; Walston et al., 2017

REL NORTHWEST

Recruitment



- Are there lists we can use?
- How do we recruit?
- How many do we invite?
- Are monetary or nonmonetary incentives possible/helpful/needed?

Sources: Irwin & Stafford, 2016; Powell & Single, 1996; Walston et al., 2017

REL NORTHWEST

Facilitation

- Common practice: Up to two facilitators
- Characteristics of effective facilitators
- Content of a facilitator guide

Brainstorm: Draft questions

- Logistics
  - Notes/recordings/transcripts
  - Consent form

REL staff members will take notes and hand them to you at the end of each focus group for processing; we will not keep a copy

Sources: Irwin & Stafford, 2016; Powell & Single, 1996; Walston et al., 2017

REL NORTHWEST

Next Steps

- Recruit
- Prepare
  - Finalize the facilitator guide and other materials (e.g., agenda, handouts)
  - Practice
  - Optional:
    - Dry run
    - Readings
- Conduct
- Schedule data use training

Sources: Irwin & Stafford, 2016; Powell & Single, 1996; Walston et al., 2017

REL NORTHWEST

Contact Us

Hella Bel Hadj Amor, Ph.D.: hella.belhadjamor@educationnorthwest.org and 503-275-9587
Steve Klein, Ph.D.: steve.klein@educationnorthwest.org and 503-275-9628

REL Northwest at Education Northwest
101 SW Main Street, Suite 500
Portland, OR 97204-3213

ies.ed.gov/ncee/edlabs/regions/northwest

@relnw

1.800.547.6339

REL NORTHWEST

References

Artino, A. R., Jr., & Gehlbach, H. (2012). AM Last Page: Avoiding four visual-design pitfalls of survey development. Academic Medicine, 87(10), p. 1452. Retrieved March 25, 2019, from https://journals.lww.com/academicmedicine/Citation/2012/10000/AM_Last_Page___Avoiding_Four_Visual_Design.35.aspx

Artino, A. R., Jr., Gehlbach, H., & Durning, S. J. (2011). AM Last Page: Avoiding five common pitfalls of survey design. Academic Medicine, 86(10), p. 1327. Retrieved March 25, 2019, from https://journals.lww.com/academicmedicine/fulltext/2011/10000/AM_Last_Page__Avoiding_Five_Common_Pitfalls_of.38.aspx

Harlacher, J. (2016). An educator's guide to questionnaire development (REL 2016-108). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central. http://eric.ed.gov/?id=ED562653

Irwin, C. W., & Stafford, E. T. (2016). Survey methods for educators: Collaborative survey development (part 1 of 3) (REL 2016-163). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast & Islands. http://eric.ed.gov/?id=ED567751

Pazzaglia, A. M., Stafford, E. T., & Rodriguez, S. M. (2016a). Survey methods for educators: Selecting samples and administering surveys (part 2 of 3) (REL 2016-160). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast & Islands. http://eric.ed.gov/?id=ED567752

Pazzaglia, A. M., Stafford, E. T., & Rodriguez, S. M. (2016b). Survey methods for educators: Analysis and reporting of survey data (part 3 of 3) (REL 2016-164). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast & Islands. http://eric.ed.gov/?id=ED567753

Powell, R. A., & Single, H. M. (1996). Focus groups. International Journal for Quality in Healthcare, 8(5), 499–504.

Walston, J., Redford, J., & Bhatt, M. P. (2017). Workshop on survey methods in education research: Facilitator's guide and resources (REL 2017-214). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Midwest. http://eric.ed.gov/?id=ED573681

REL NORTHWEST