

# *Zoom*

# *In/Zoom Out:*

## *Conducting Evaluation*

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# WELCOME & HOUSEKEEPING

- Restrooms
- Wi-fi:

Literacenter  
WhereTheWiFiThingsR



# INTRODUCTIONS



- **Name**
- **Organization**



# TODAY'S PLAN

**Our hopes for today's session:** to become knowledgeable and able to build strong data collection practices that work for you and your team

**We'll be covering:**

1. Identify who data is for, how it is shared, and how to define “good” data
2. Assess organizational capacity needs around data, assessment, and evaluation
3. Determine the kinds of data and information to collect (quantitative, qualitative, or a combination of both) to best inform future practice



# TODAY, WE'LL BEGIN TO ANSWER...

How do I know if I have “good data”?

When it comes to making data-driven decisions, what’s my organization’s capacity?

What’s the best method to use?

Who do I want to share my data with and how?



# WHAT DATA IS AVAILABLE?

- What kinds of data does your organization already collect?
  - One-time data collection
  - Tracking measures across time
  - Panel data with the same participants over time
  
- Does that data answer all the questions that you and your stakeholders have?





# WHAT MAKES “GOOD DATA”?

## Ideally

- Goal-focused & well-defined
- Outcomes are based on inputs (re: logic model)
- Rigorous from start to finish
- Minimized bias
- Uses reliable and valid data
- Supports continuous growth



# WHAT MAKES “GOOD DATA”?

## What it's not

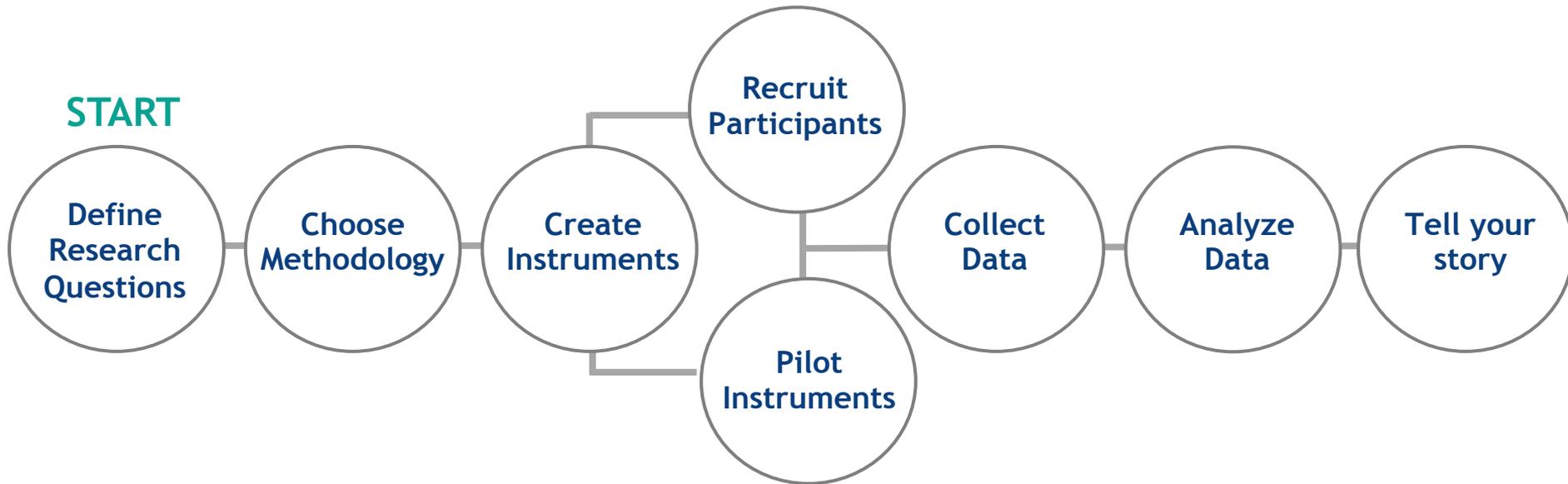
- Just about the numbers
- Proof beyond the shadow of a doubt
- A magic bullet
- Just about significance
- Tries to measure impact beyond the organizations reach
  - *e.g. proof that your organization will save the world*



# COLLECTING GOOD DATA

DECISION-MAKING ALONG THE WAY

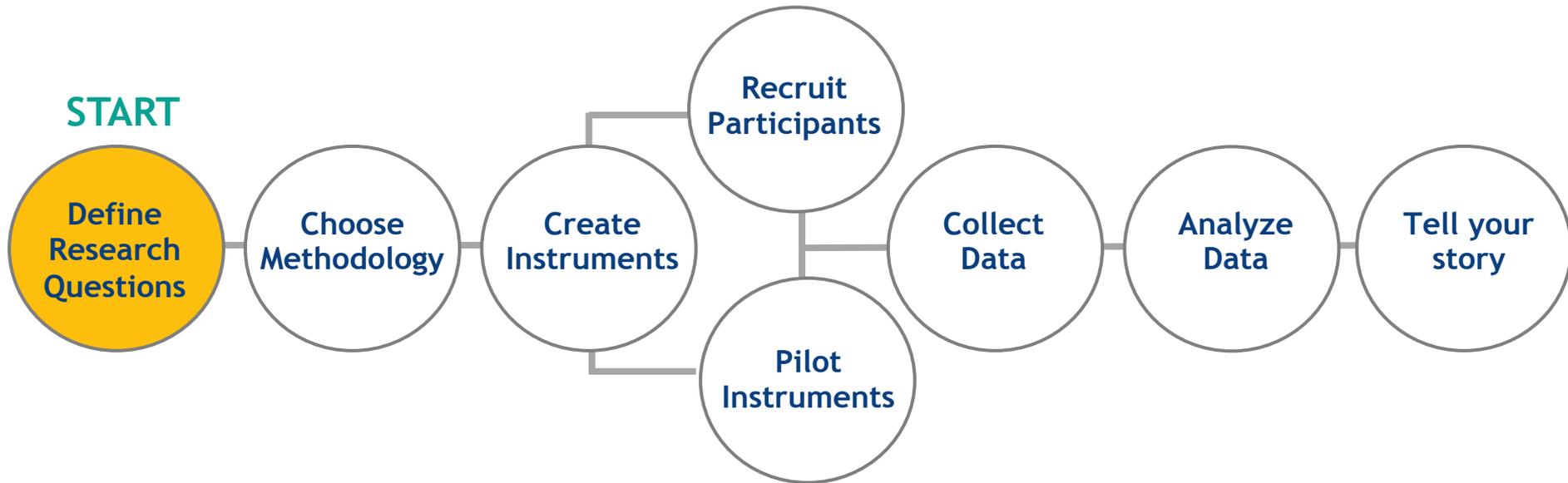
Good data comes from good design & implementation





# COLLECTING GOOD DATA

DECISION-MAKING ALONG THE WAY





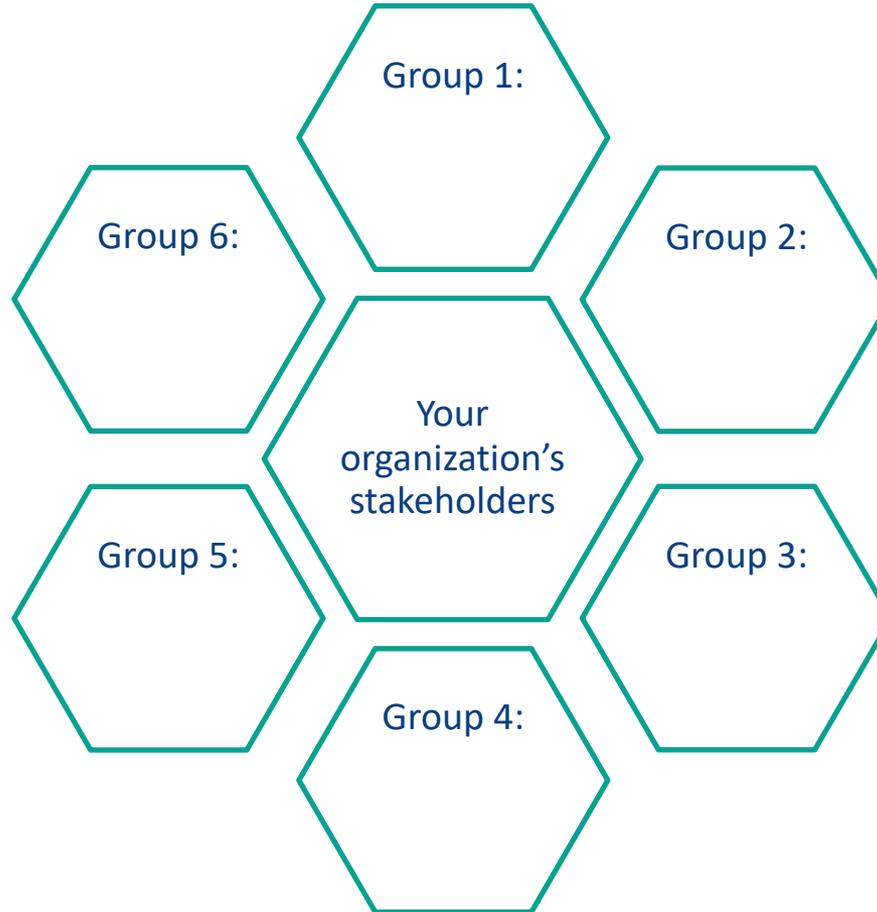
# DEFINING YOUR RESEARCH QUESTIONS

- What do you already know?
- What do you think you know?
- What do you think you need to improve or grow?
- What do others want to know? What do you need to show?



# STAKEHOLDER EXERCISE

Who do you want to share your stories with?





# EXAMPLE OF A STAKEHOLDER MAP

Why do you want to share your stories with these groups?

Put yourself in their shoes: What info do they need from you?

Information on how to be more effective in their role. Any evidence about where to focus their time and skills?

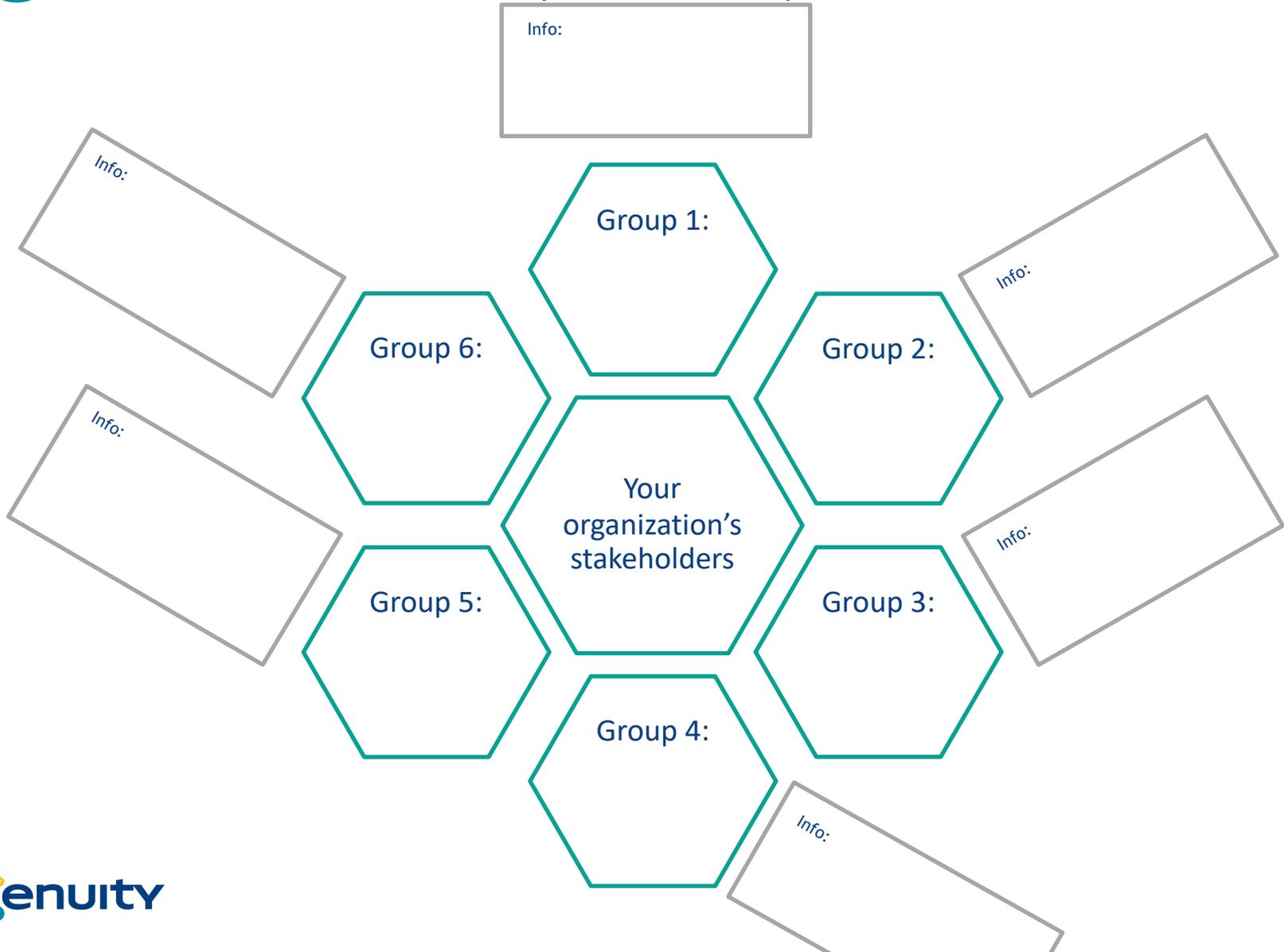
Information on the impact of their funding. How has it made a difference in people's lives?





# STAKEHOLDER EXERCISE

What information do they need from you?





# OTHER THINGS TO CONSIDER FOR STAKEHOLDERS

Consider:

- your stakeholders' literacy
- numeric literacy
- depth of knowledge needed
- what data they need to take action

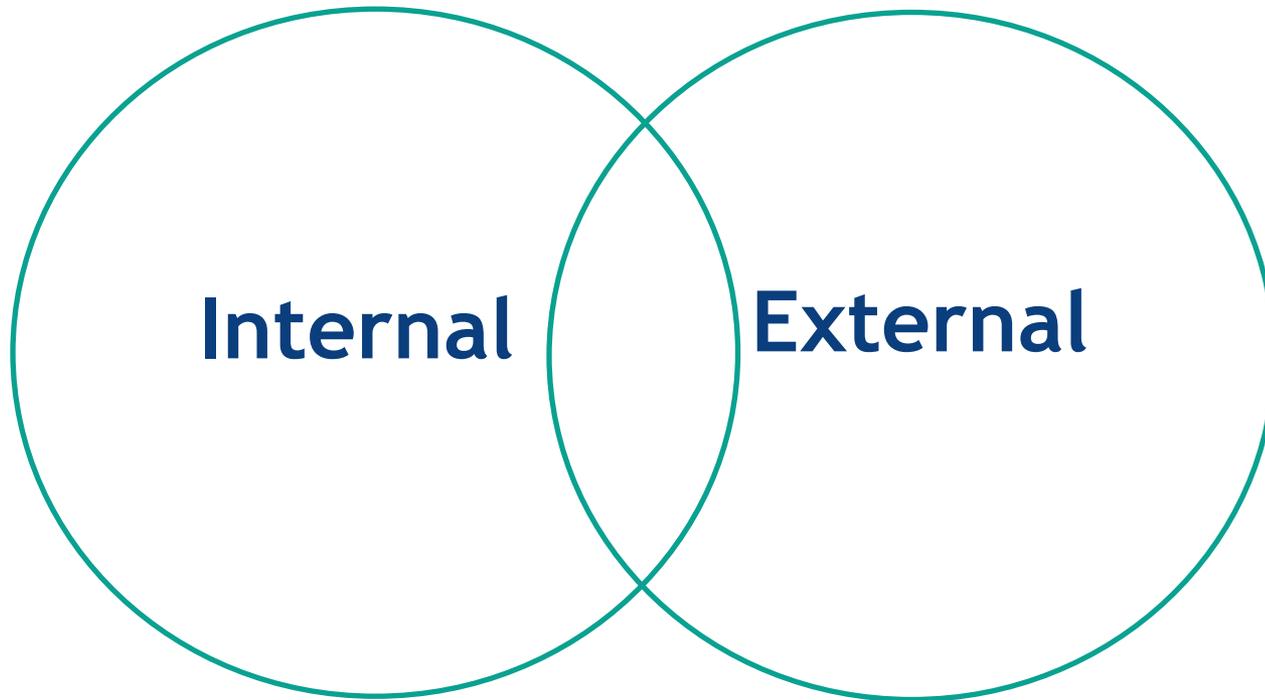




# STAKEHOLDER EXERCISE

Discussion

What stakeholders did you include?





# STAKEHOLDER EXERCISE

Discussion

What kinds of information do your stakeholders need?

- For internal stakeholders?
- For external stakeholders?

Are there actions you're hoping they'll take based on your results?

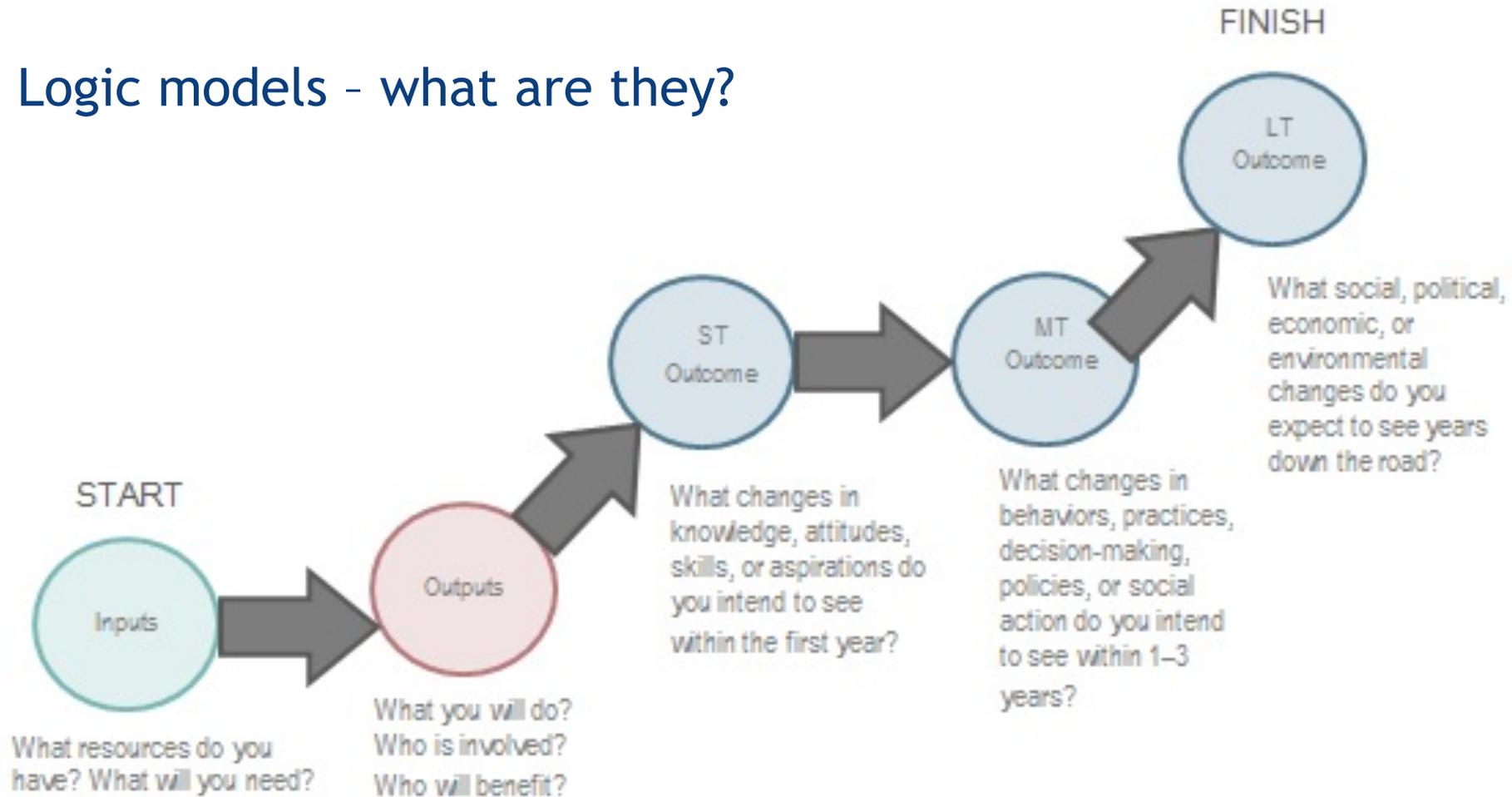


# TOOLS TO HELP CREATE A FOCUSED RESEARCH PLAN

- Mission & vision
- Logic model
- Program development plan

# INTEGRATING RESEARCH INTO YOUR ORGANIZATION

- Logic models - what are they?





# INTERNAL REFLECTION

- Does your organization have a logic model?
- Can you measure against your logic model?
- How can data inform your logic model?
  - Do your findings change your assumptions?
  - What new questions have arisen?
- Has your organization ever changed its logic model?



# DEFINING YOUR RESEARCH QUESTIONS

Moving from goals to measurable questions

## If the goal is to...

- Increase the number of students served
- Authentically engage communities that my organization has not engaged before
- Provide access to programming for people from across the city/county/community area

## Then you might want to ask...

- How many students are we currently reaching?
- What are some of the needs, interests, or issues relevant to some or most of the community members?
- What are some of the barriers community members encounter when traveling to the program?

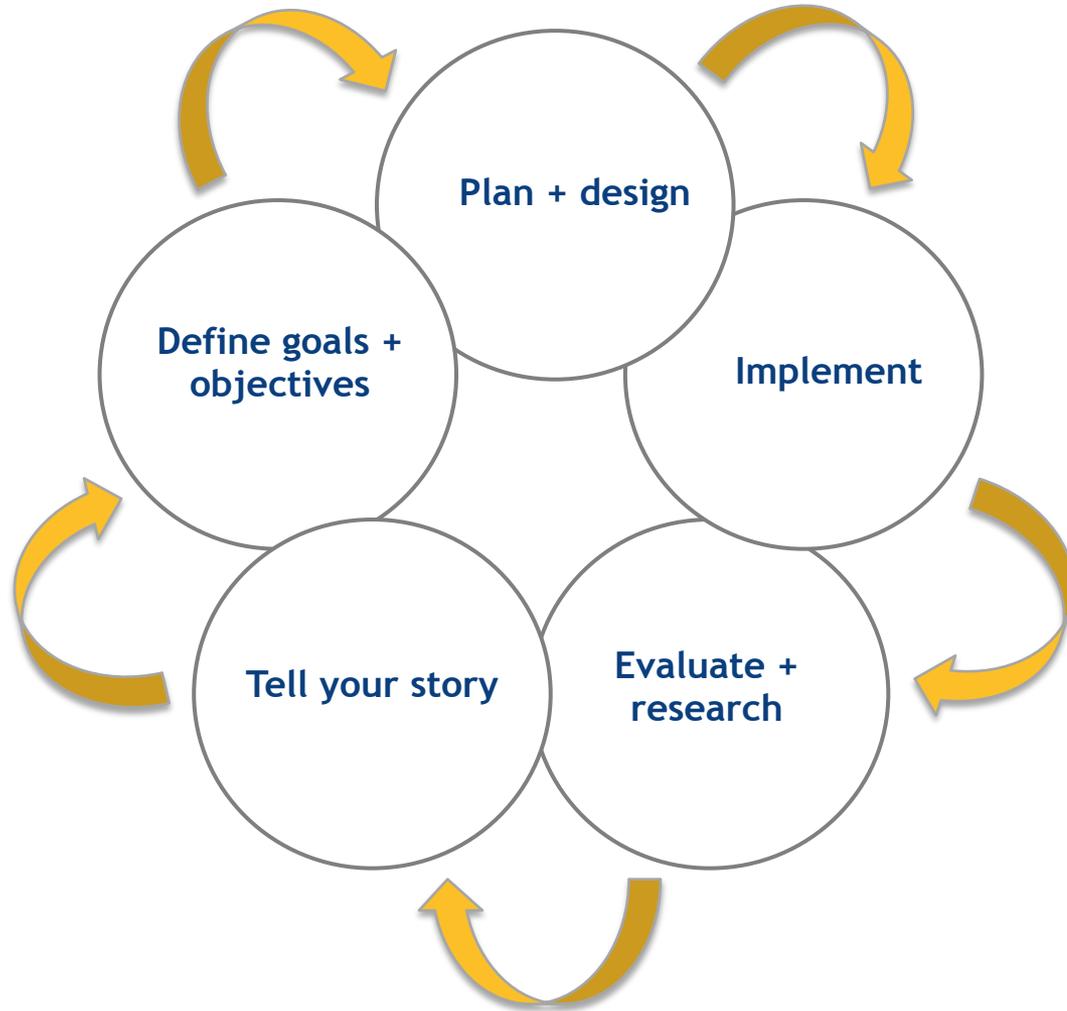
**Identify one organizational goal.**

**Write one question that speaks to that goal.**



# THE CYCLE OF EVALUATION

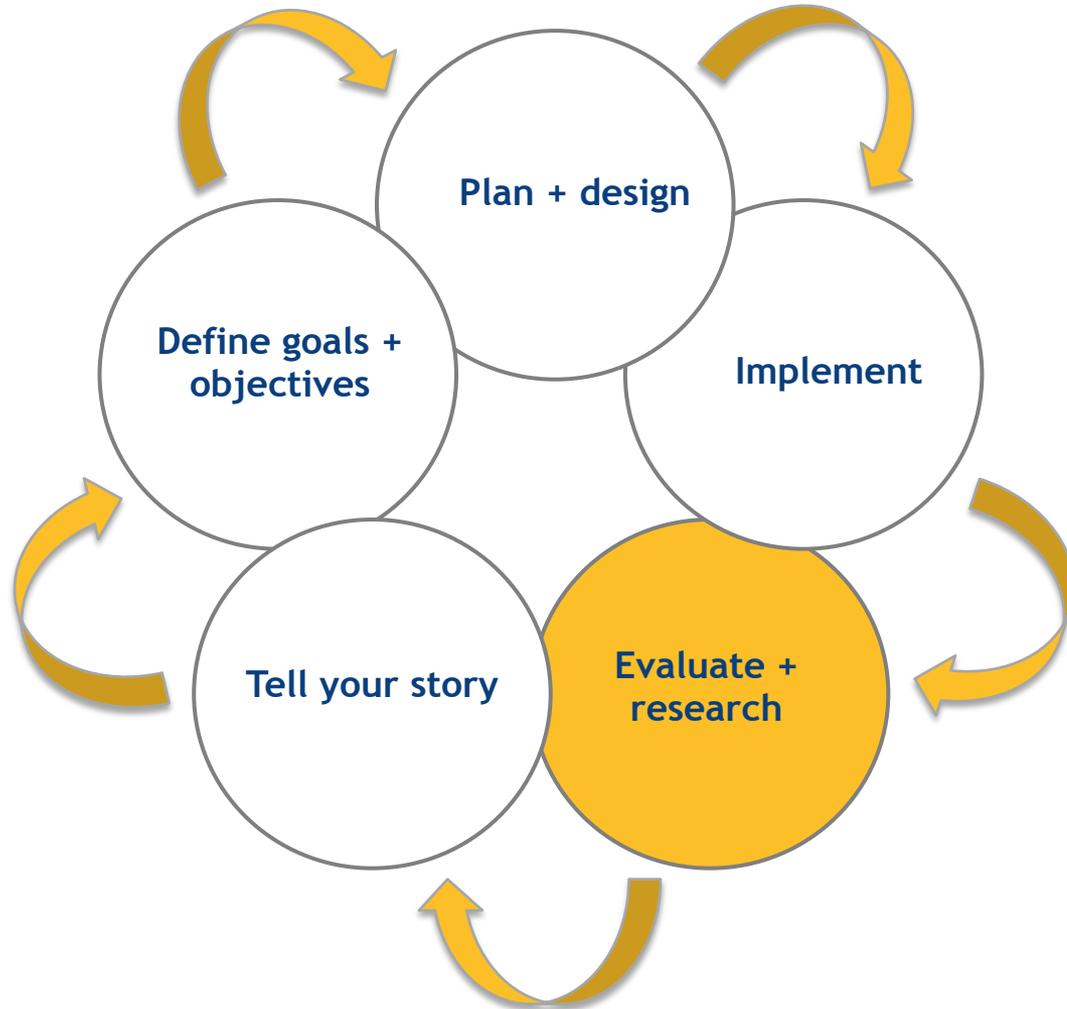
Program development





# THE CYCLE OF EVALUATION

Program development



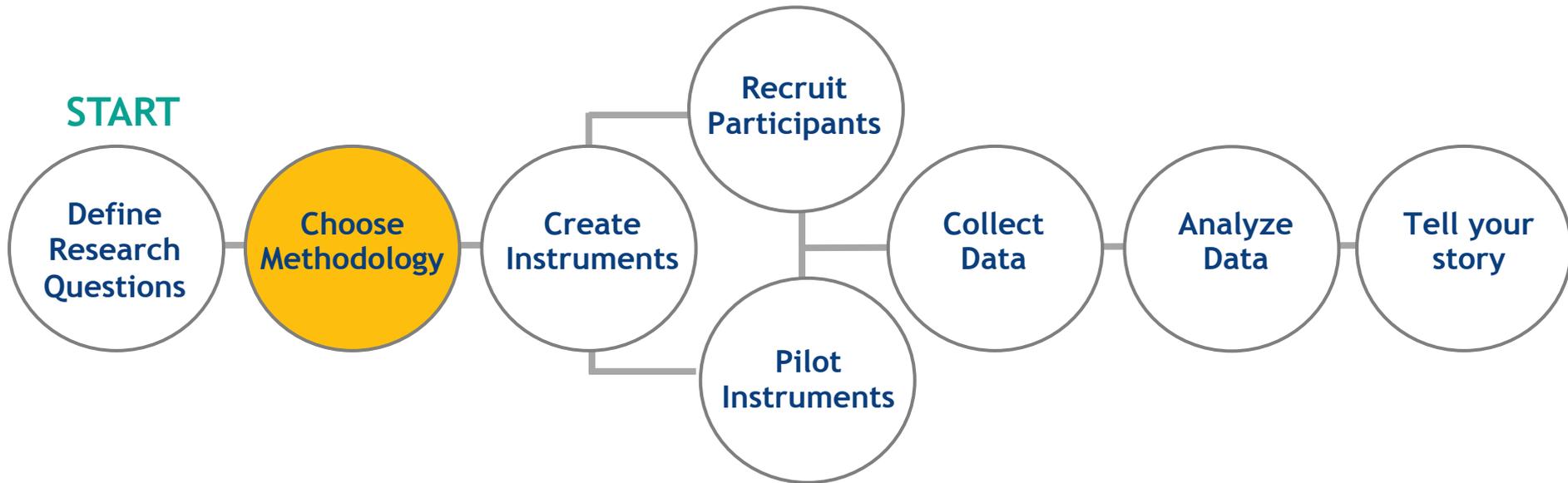


**BREAK**



# COLLECTING GOOD DATA

DECISION-MAKING ALONG THE WAY





# TYPES OF RESEARCH METHODS

Quantitative, Qualitative or Mixed methods

What's the difference?

## Qualitative

In-depth interviews  
Focus groups  
Observations  
Ethnography  
Rubric  
Surveys...

## Quantitative

Surveys  
Timing and tracking



# WITHIN SURVEYS

You can have BOTH Quantitative & Qualitative data



Today, we'll focusing on surveys



# QUANTITATIVE, QUALITATIVE, AND MIXED METHODS





# QUANTITATIVE, QUALITATIVE, AND MIXED METHODS

## Strengths



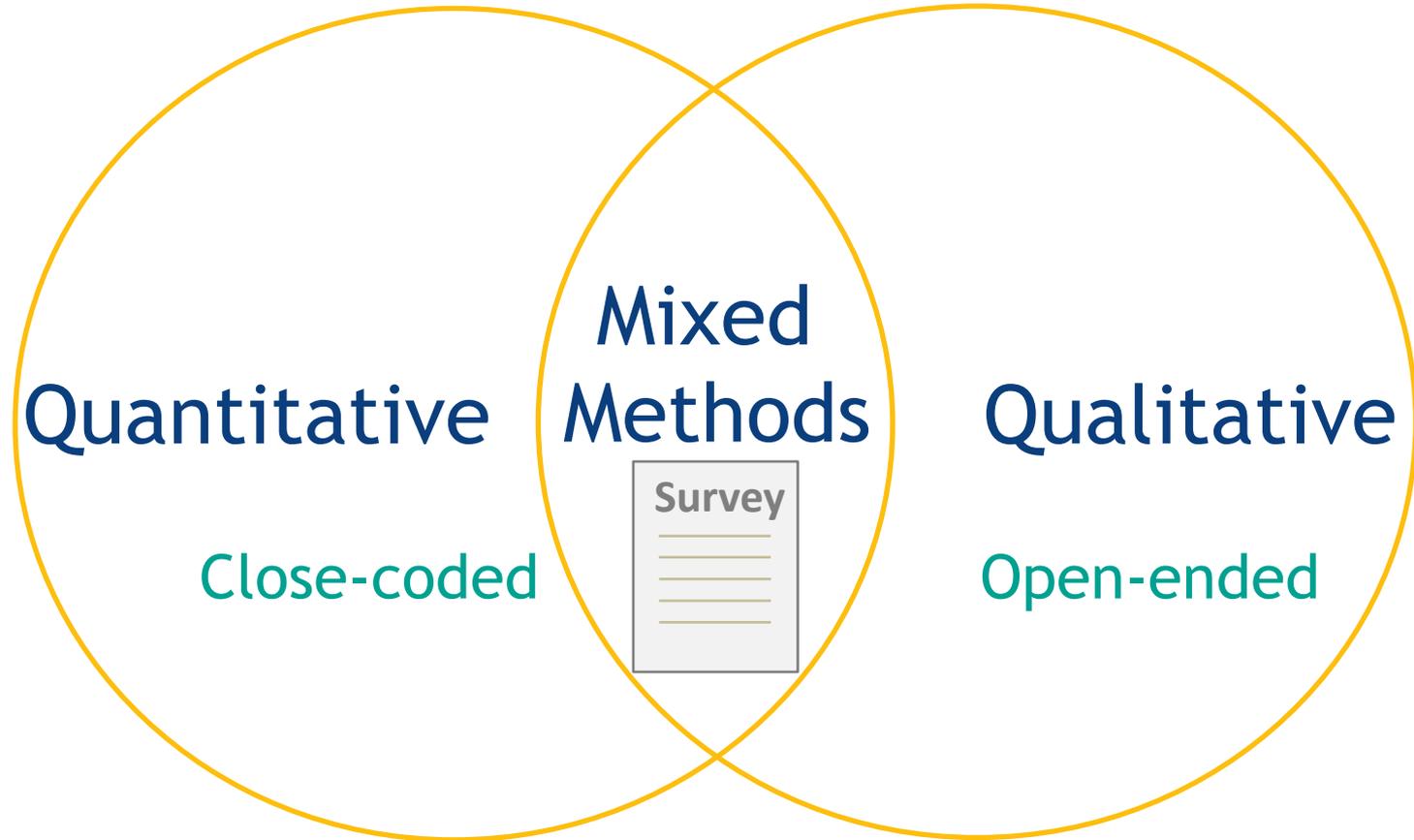


# QUANTITATIVE, QUALITATIVE, AND MIXED METHODS





# QUANTITATIVE, QUALITATIVE, AND MIXED METHODS



but surveys are only one of many ways that you can think about mixed methods...



# QUANTITATIVE, QUALITATIVE, AND MIXED METHODS

## Mixed Methods

### Qualitative

In-depth interviews  
Focus groups  
Observations  
Ethnography



### Quantitative

Surveys  
Timing and tracking



# QUANTITATIVE, QUALITATIVE, AND MIXED METHODS

## Mixed Methods

### Qualitative

In-depth interviews  
Focus groups  
Observations  
Ethnography



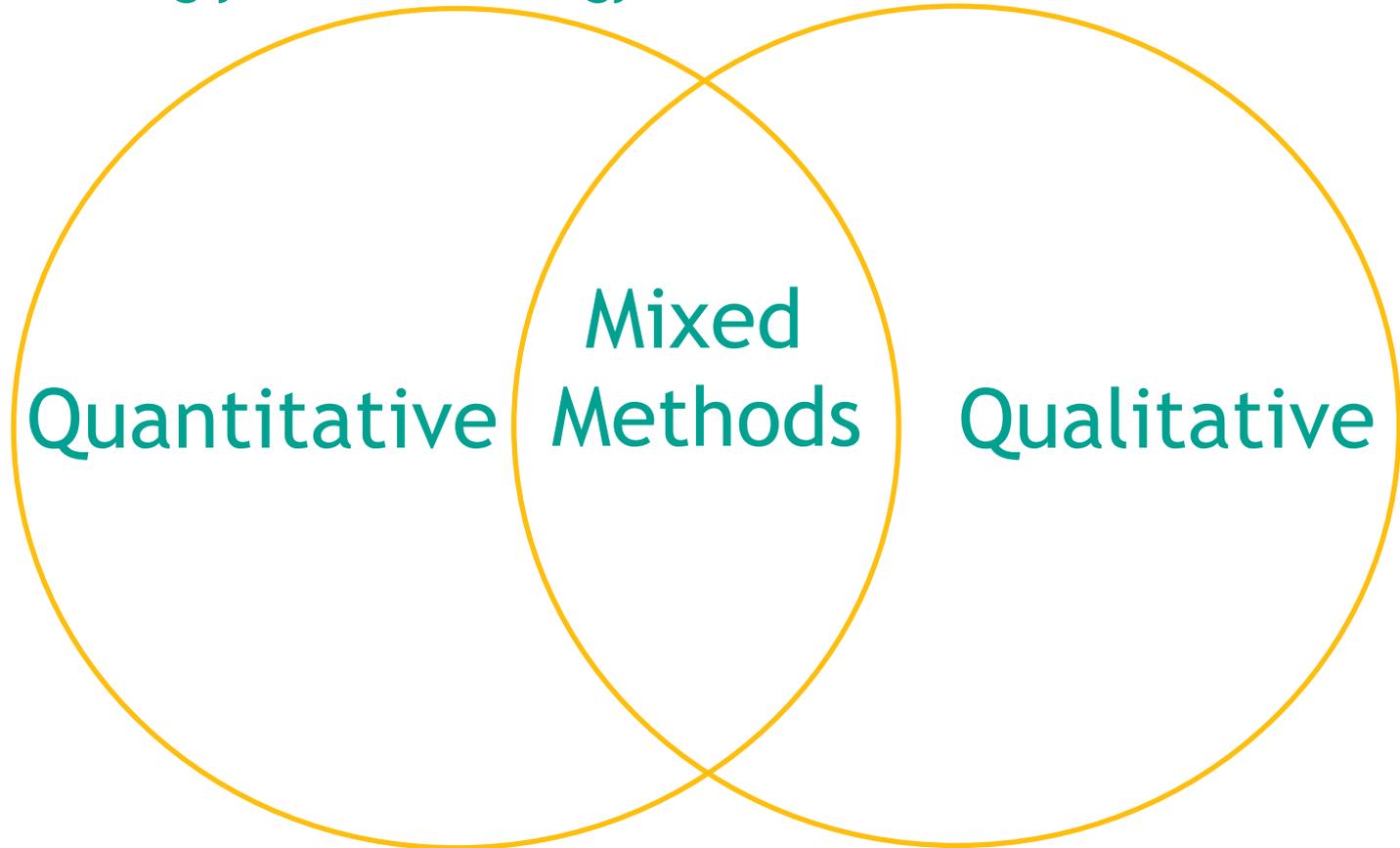
### Quantitative

Surveys  
Timing and tracking



# QUANTITATIVE, QUALITATIVE, AND MIXED METHODS

Choosing your methodology



Next, you can begin to determine how you will collect that data



# DEFINING YOUR RESEARCH QUESTIONS

Moving from goals to measurable questions

## If the goal is to...

- Increase the number of students served
- Authentically engage communities that my organization has not engaged before
- Provide access to programming for people from across the city/county/community area

Quantitative

Qualitative

Mixed-Methods

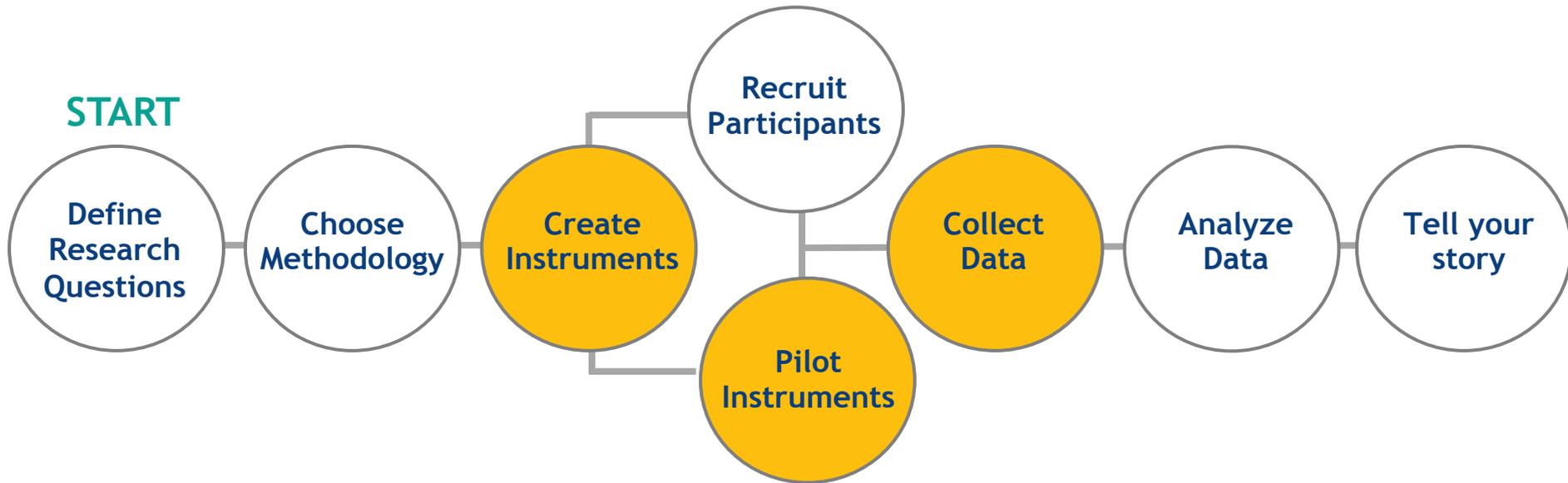
## Then you might want to ask...

- How many students are we currently reaching?
- What are some of the needs, interests, or issues relevant to some or most of the community members?
- What are some of the barriers community members encounter when traveling to the program?



# COLLECTING GOOD DATA

DECISION-MAKING ALONG THE WAY





# DECREASING BIAS IN DATA COLLECTION

- Who is and isn't getting the opportunity to take part?
- What are some of the barriers to entry/participation?
- Systemic? What's built into your design?



# DECREASING BIAS IN DATA COLLECTION

Design elements to consider

- Where are you collecting data?
- What time/point in the program are you collecting?
- How are you reaching out or “recruiting” participants?
- How are your questions worded?



# WHAT DOES IT MEAN TO SAY THAT DATA IS RELIABLE OR VALID?

Are the data **valid**?

Did we measure what we meant to measure?

Are the data **reliable**?

Did we measure it accurately?



# WHAT DOES IT MEAN TO SAY THAT DATA IS RELIABLE OR VALID?

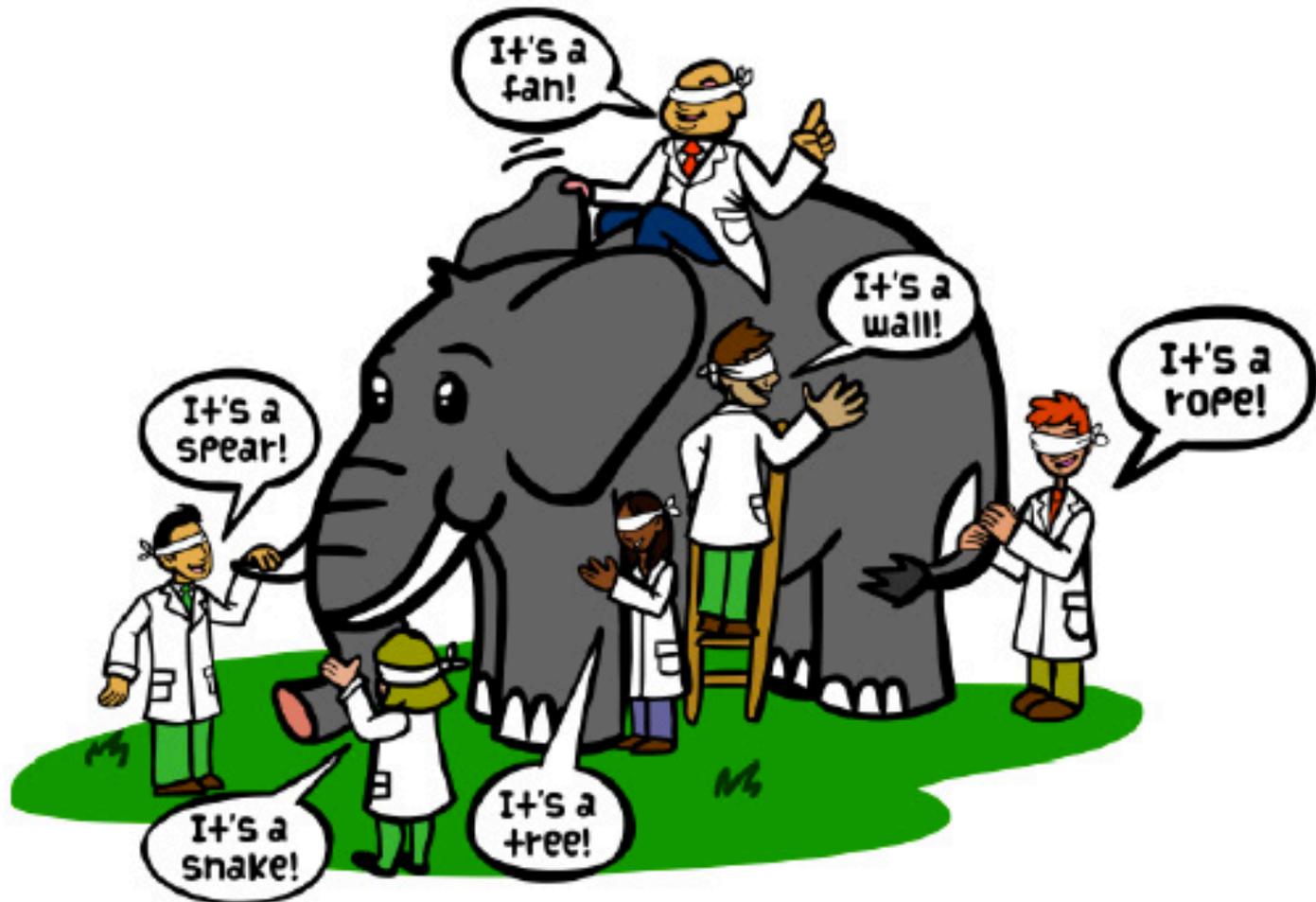


[Smokey the Bear Robot](#): You pressed "You," referring to me. The correct answer was "You."



# WHAT DOES IT MEAN TO SAY THAT DATA IS RELIABLE OR VALID?

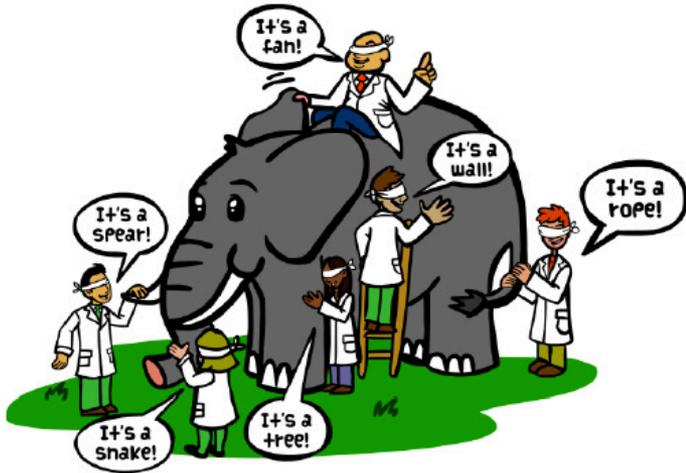
Are you measuring the same thing each time?





# WHAT DOES IT MEAN TO SAY THAT DATA IS RELIABLE OR VALID?

## Ways to collect valid and reliable data



- In survey research:
  - Measure the same thing for every respondent
    - Avoid: “How satisfied were you with the customer service and the guided tour?” (Double-barreled)
    - Use caution when interpreting findings across differently-worded surveys
    - Make as few changes as possible to surveys that you want to compare or analyze together (e.g., try not to change question wording from Wave 1 to Wave 2)
  - Collect a random, representative sample



# WHAT DOES IT MEAN TO SAY THAT DATA IS RELIABLE OR VALID?

## Qualitative

- Write your questions thoughtfully
- How to ask questions
  - Avoid loaded questions
  - Avoid leading questions
  - Also avoid double barreled questions
- Instead
  - Probe or clarity
    - Repeat the statement back for accuracy
  - Try to remain neutral
    - Avoid social desirability bias

How fun was the program?

The program was fun, wasn't it?

Tell me about your experience of the program.

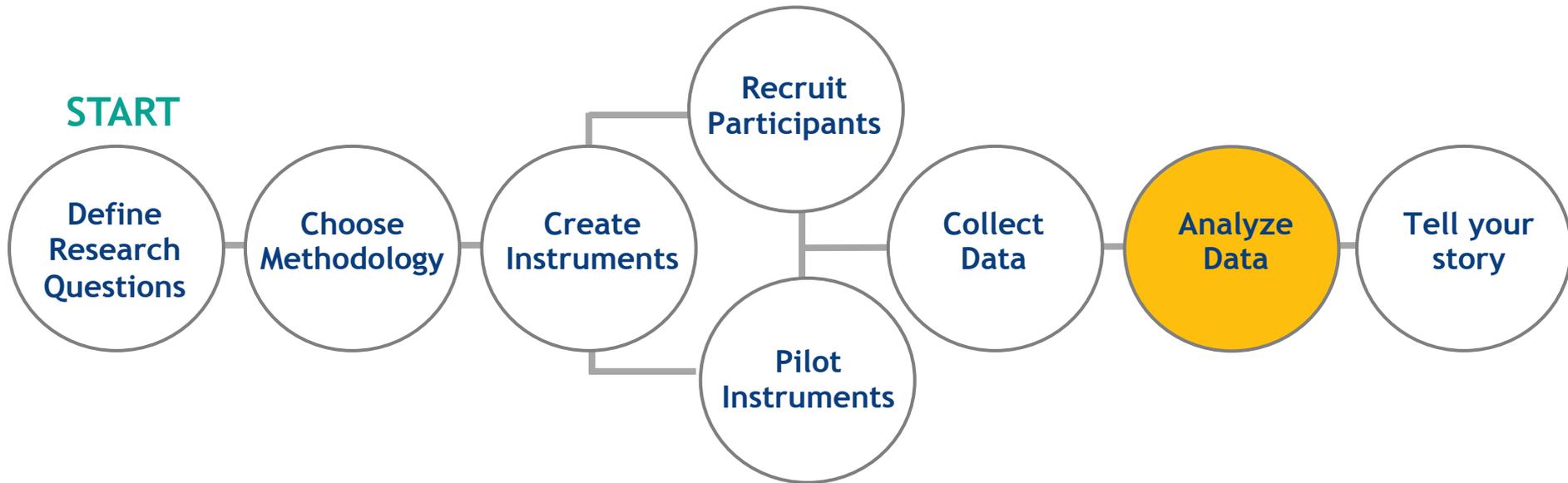
Please say more about that.

Thank you for sharing that.



# COLLECTING GOOD DATA

DECISION-MAKING ALONG THE WAY





# COLLECTING GOOD DATA

- Match the right tools with the right questions
- Involve more than one person in analysis
- Know and communicate the limitations of your data
- Let the data speak
- Be objective and balanced



# COLLECTING GOOD DATA

How to know if your findings are meaningful?

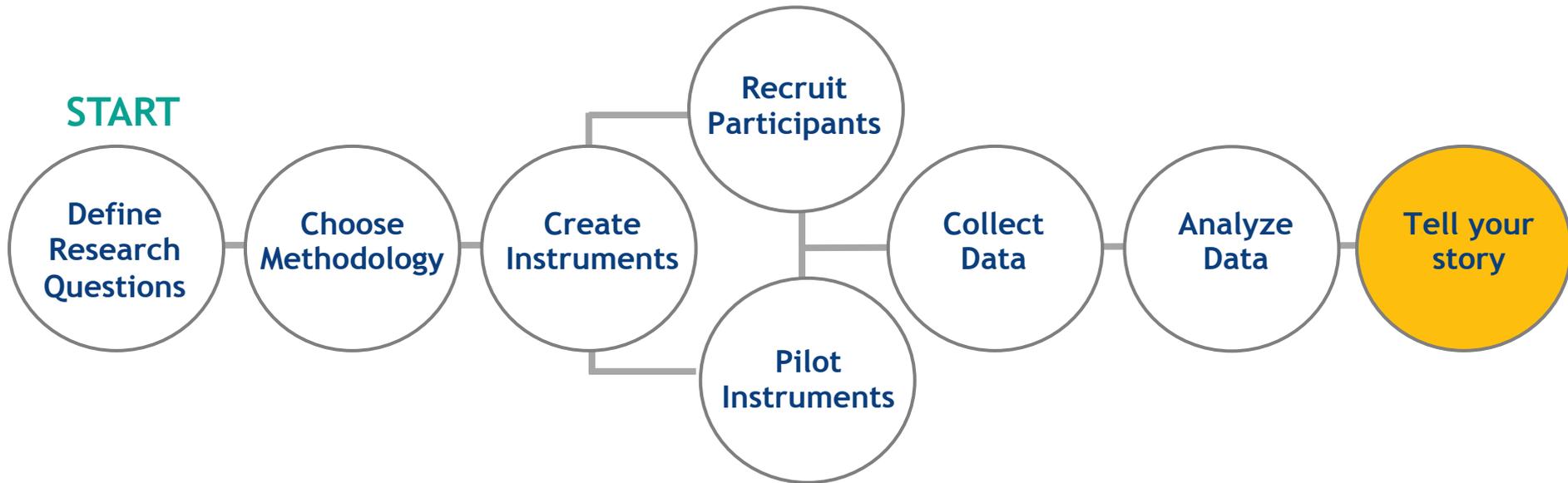


- Does it seem like a large difference?
- Is it part of a larger pattern?
- Does it “make sense” in light of what you know or suspect?
  - i.e., can you explain why?
- Does it suggest something important re: your organization’s goals?
- Is it statistically significant? (optional)



# COLLECTING GOOD DATA

DECISION-MAKING ALONG THE WAY





# HOW TO USE YOUR DATA

- Don't shy away from “negative” results, that's where we grow
- Avoid fishing for data or cherry-picking results
- We're not trying to “prove” anything, just make more data-informed decisions



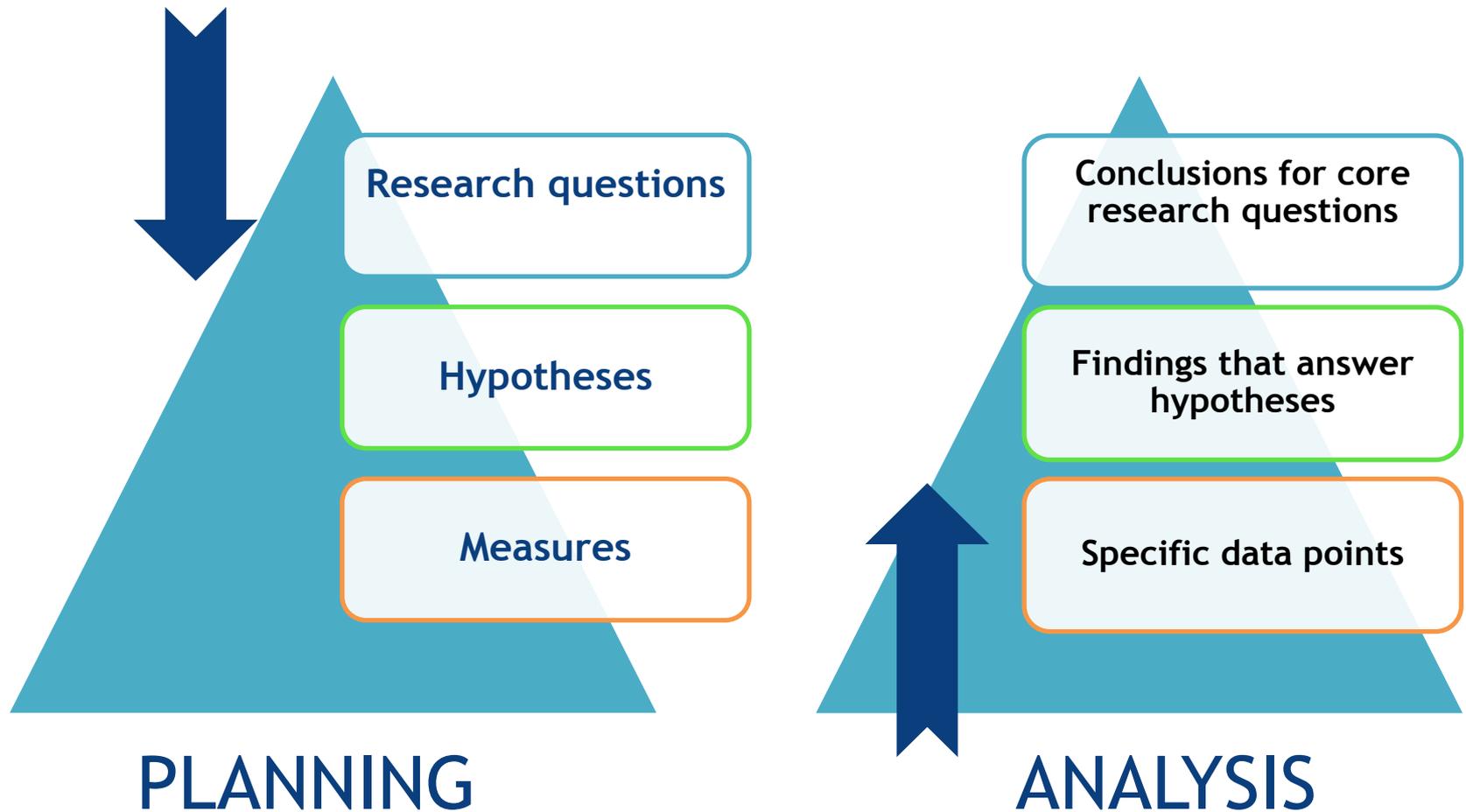
# MAKING MEANING OUT OF UNEXPECTED OR “NEGATIVE” RESULTS

What can you do with “negative” results?

- Use them as guides for program development
- Do follow-up research
- Don’t shy away from sharing this with funders and team members
  - Communicate the findings *and* the plan to do or learn more as a result of the data
- Make changes and evaluate it again later to see the impact



# SHIFTING FROM TOP-DOWN PLANNING TO BOTTOM-UP ANALYSIS





# WHAT IS DATA VISUALIZATION?

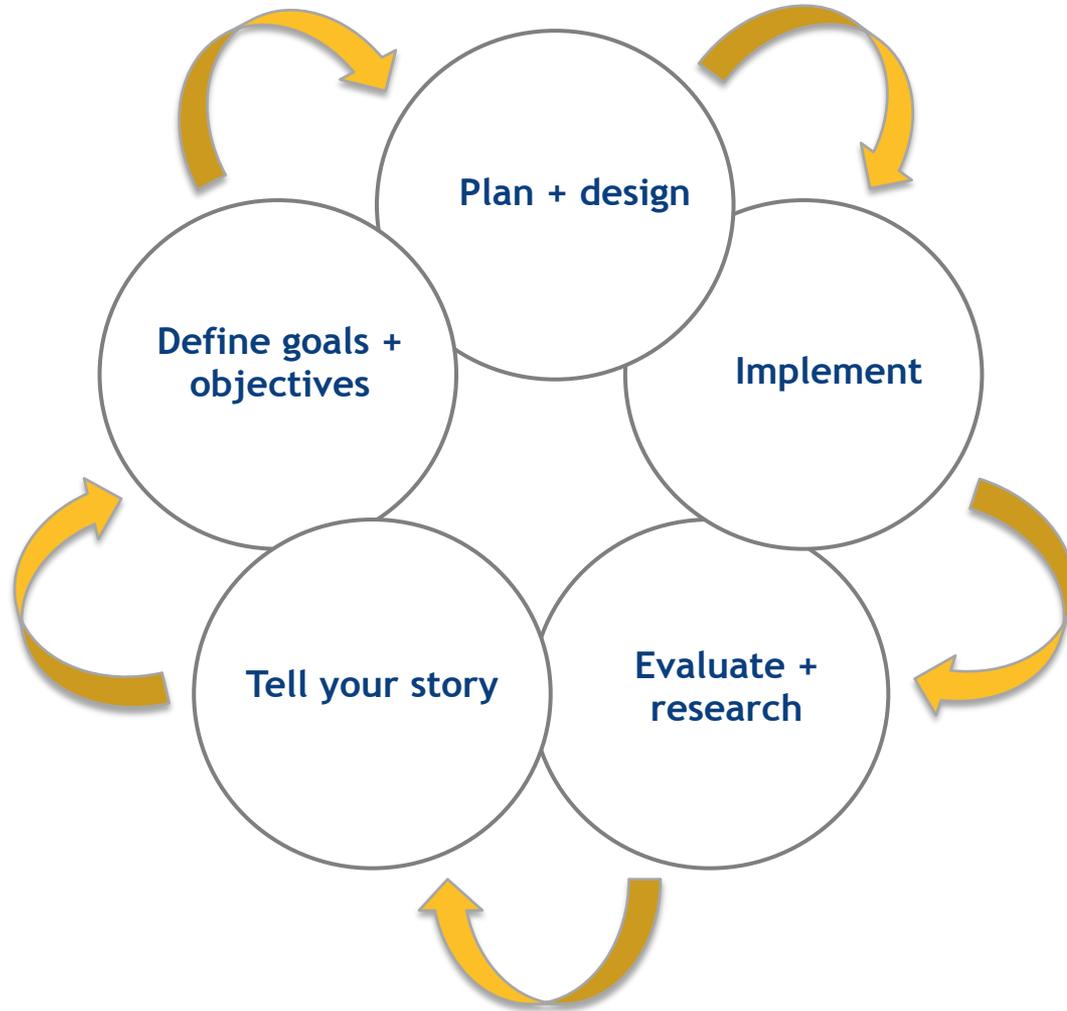


“The techniques used to communicate data or information by encoding it as visual objects in graphics.”



# THE CYCLE OF EVALUATION

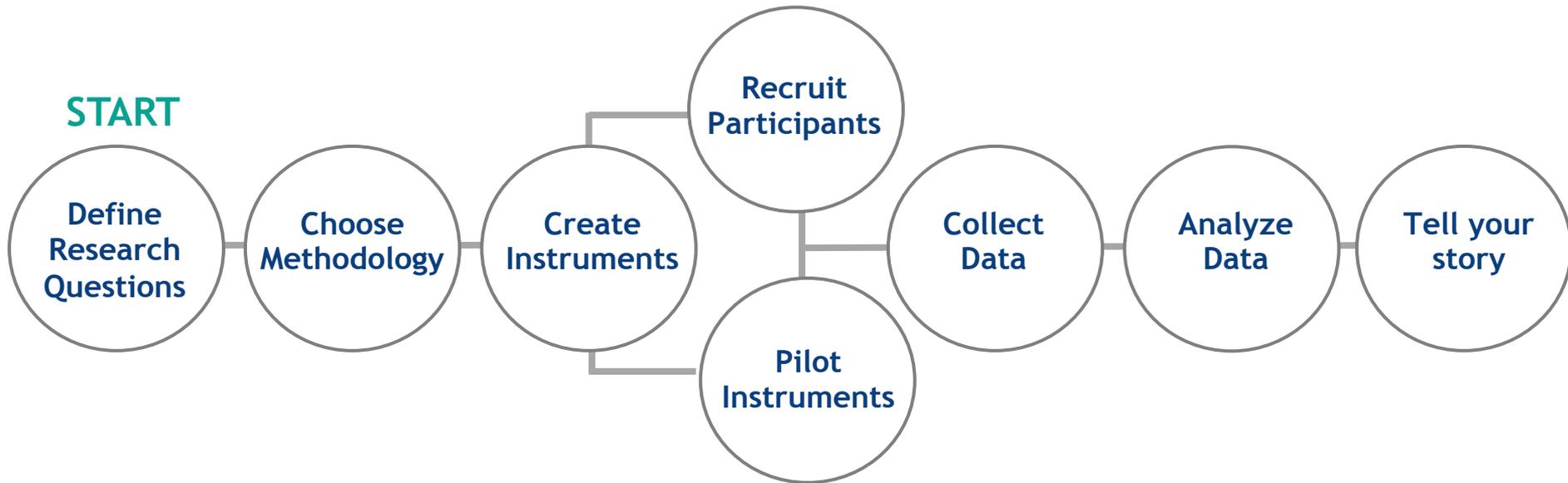
Program development





# EVALUATE YOUR ORGANIZATIONAL CAPACITY

What tools and experience do you have? What do you need?





# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

What is “capacity for research”?

- capacity is going to be discussed in terms of:
  - staff time/resources
  - organizational knowledge and skills with research & evaluation
  - research and evaluative needs of the organization



# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

Factors to consider

1. Clarifying your research questions
  - What do you already know?
  - What do you think you know?
  - What does your logic model suggest?



# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

Factors to consider

2. Selecting and developing appropriate methods
  - Know when you need qualitative methods and when you need quantitative



# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

Factors to consider

## 3. Collecting data

- Decrease bias where you can
- Numbers aren't the only thing that matters
- Know and communicate your limitations



# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

Factors to consider

## 4. Managing the data

- Do you have a system for when, how, and who enters and manages the data?
- Are there clear ways to identify the data set and when/where it was collected from?
- Have you removed any identifiers from it?



# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

Factors to consider

## 5. Analyzing the data

- Are you answering the research questions you set out to answer?
- Do you have the analytical tools that you need? (think addition, subtraction and multiplications)
- What are your current barriers to analysis?



# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

Factors to consider

## 6. Evaluate and interpret the data

- Are you able to connect your interpretation to your research questions?
- Do you know where and how your data will be used?
- Do you know how to put the analysis into context?
- What are your current barriers to interpretation?



# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

Factors to consider

8. Taking action for changed based on your *interpretation* of the data

- Who will be making those changes?
- What are the barriers to change?
- What small changes can be made first?
- What resources do you need?

# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH



# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

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## RESEARCH AND DATA CAPACITY ASSESSMENT

AS A QUALITY TEAM, fill out the below organizer to assess what your team/organization's current capacity is for each research task, and what capacity-building steps you might need to take in order to fully carry out the research plan you began to create in the Articulating Your Research Questions.

Research Task	Current Capacity	Capacity-Building Needed
Identifying the role of research and data/assessment and evaluation		
Clarifying your research questions		
Selecting and developing appropriate methods		
Collecting data		
Managing the data (i.e., organizing it, storing it securely, etc.)		

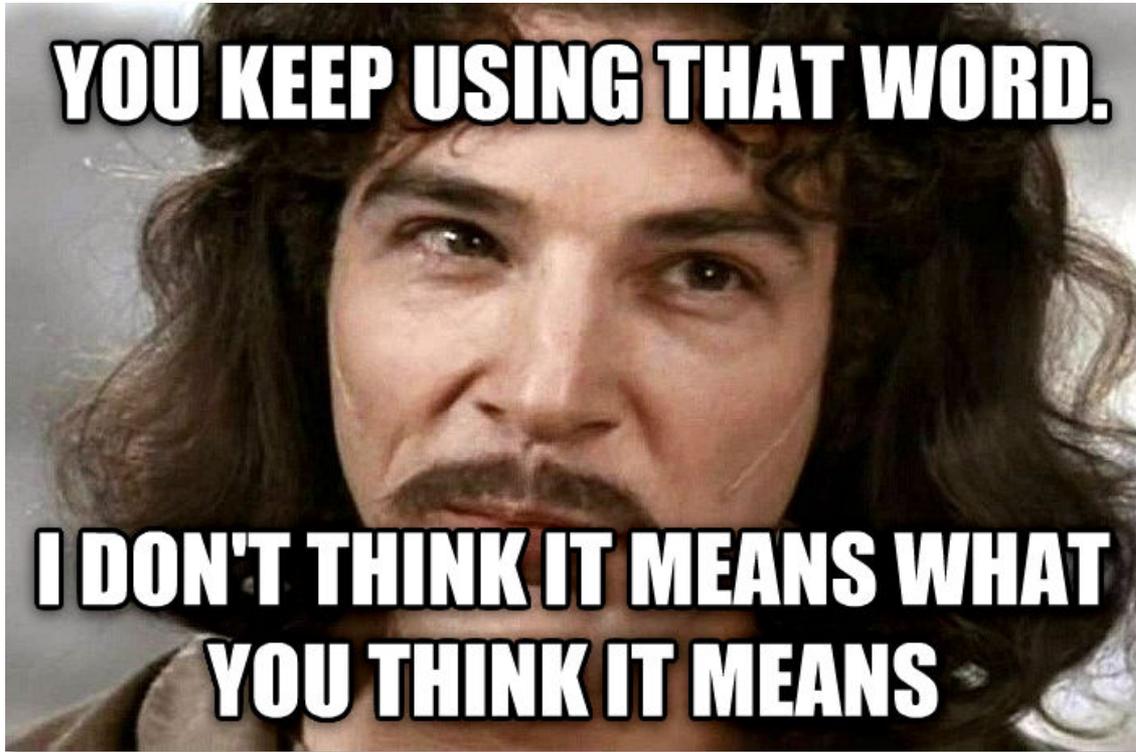


# EVALUTE ORGANIZATIONAL CAPACITY FOR RESEARCH

## NEXT STEPS

- What assets already exist on your team? In your network?
- Given your capacity, what *can* you do tomorrow?
- What tools or staff do you need to do more next year?
- How can you use the resources around you to fill in some gaps?
- What is your plan after you leave today?

# COMMONLY USED RESEARCH TERMINOLOGY



Significant

Reliable/valid

Correlated with

Prove



# EVALUATION



# CULTIVATING CONDITIONS FOR GROWTH

Professional Learning Catalog  
2018–2019 School Year

ingenuity



DEPARTMENT OF ARTS EDUCATION



***Thank You!***

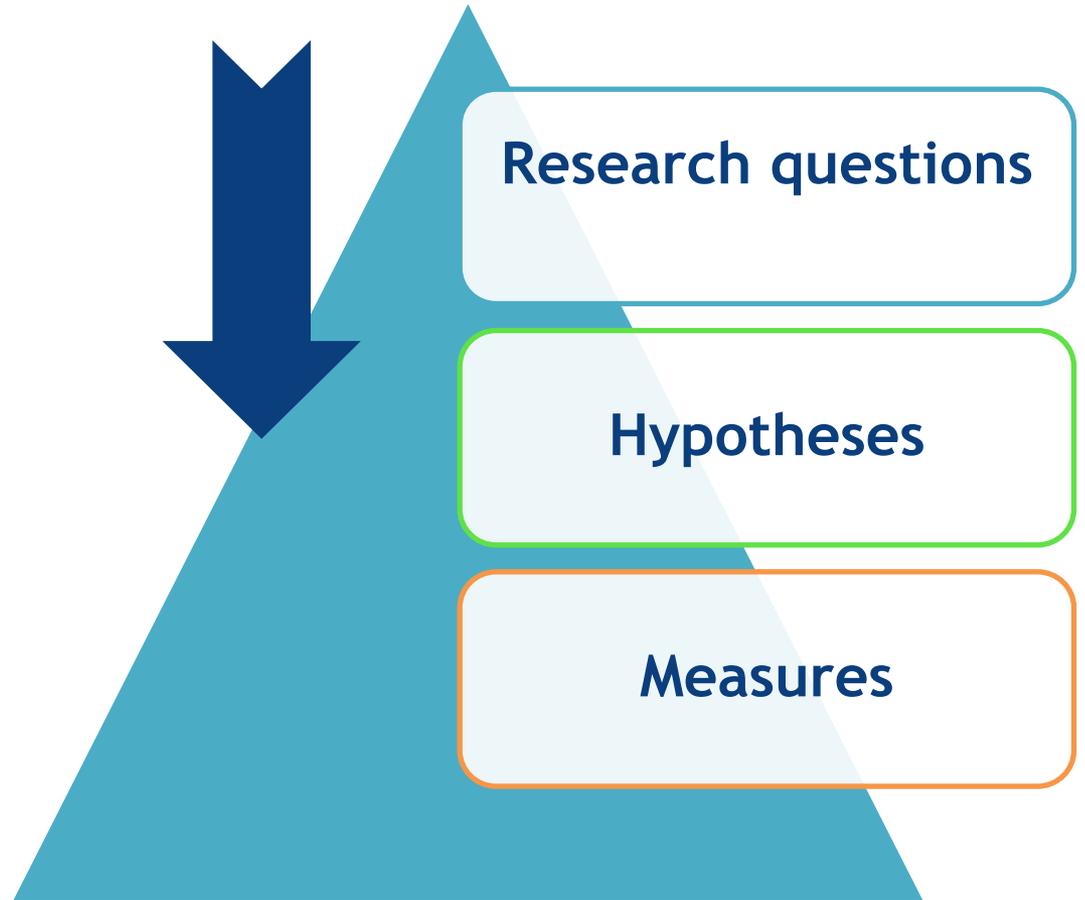
**Katherine Gean**

*katherine@sloverlinett.com*



# HOW SHOULD I FRAME MY STORY? A HIERARACHY OF INFORMATION

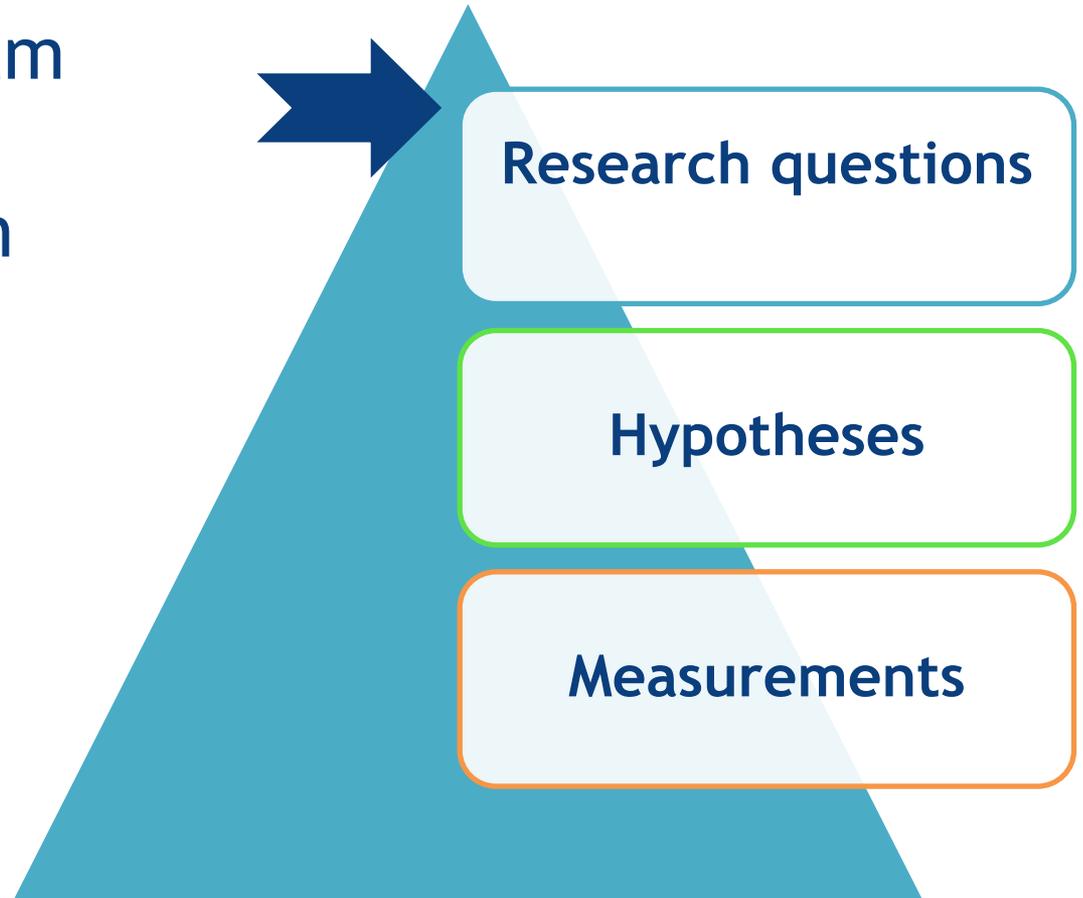
When planning,  
work from the  
top down





# HOW SHOULD I FRAME MY DATA STORY? A PROGRAM EVALUATION EXAMPLE

Does the program  
affect critical  
thinking skills in  
participants?

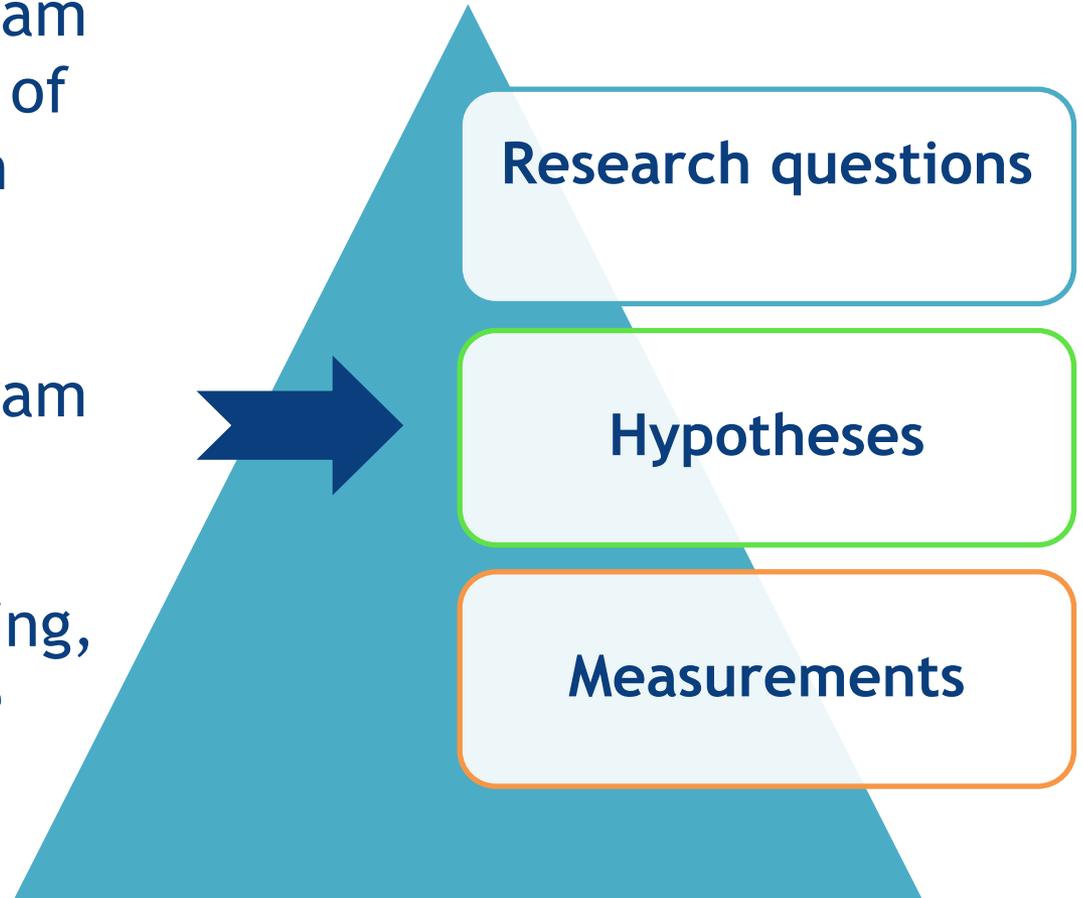




# HOW SHOULD I FRAME MY DATA STORY? A PROGRAM EVALUATION EXAMPLE

Hypothesis 1: The program will increase four types of critical-thinking skills in participants.

Hypothesis 2: The program focuses mainly on considering multiple options in problem solving, so we expect to see the biggest leaps there.

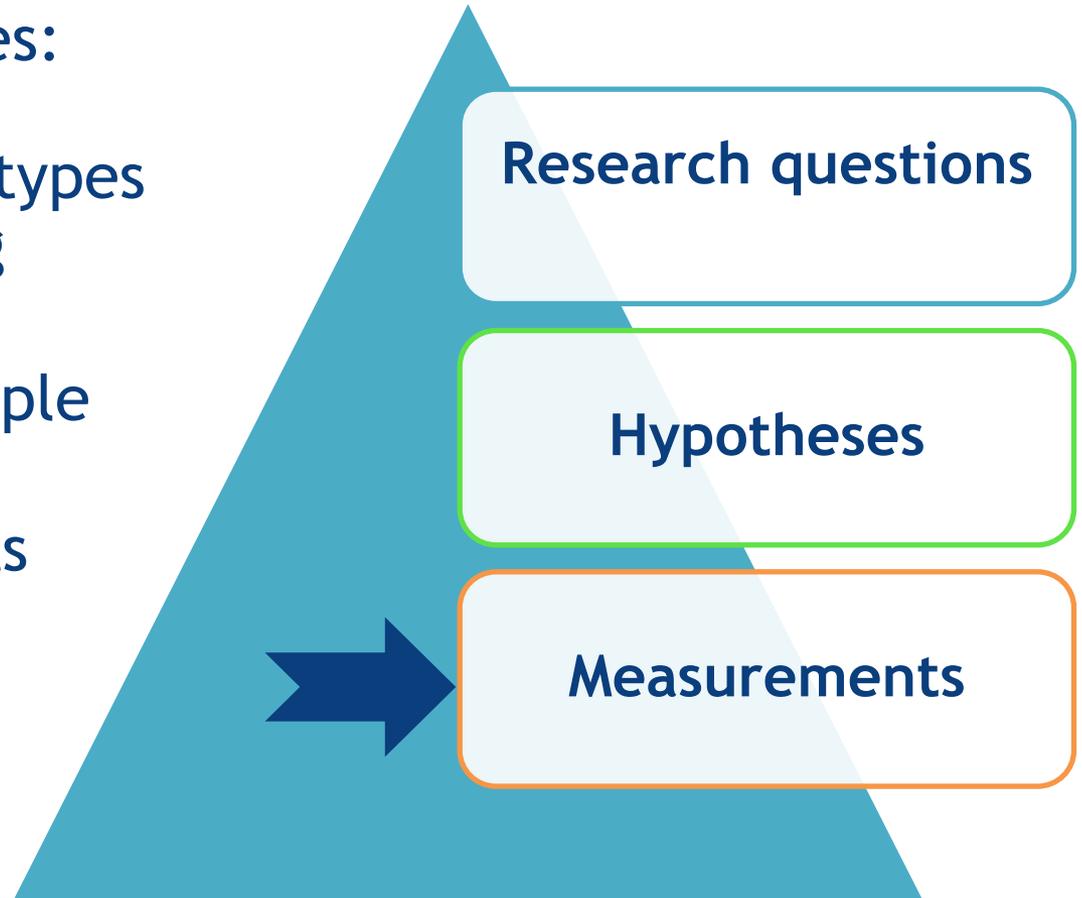




# HOW SHOULD I FRAME MY DATA STORY? A PROGRAM EVAL EXAMPLE

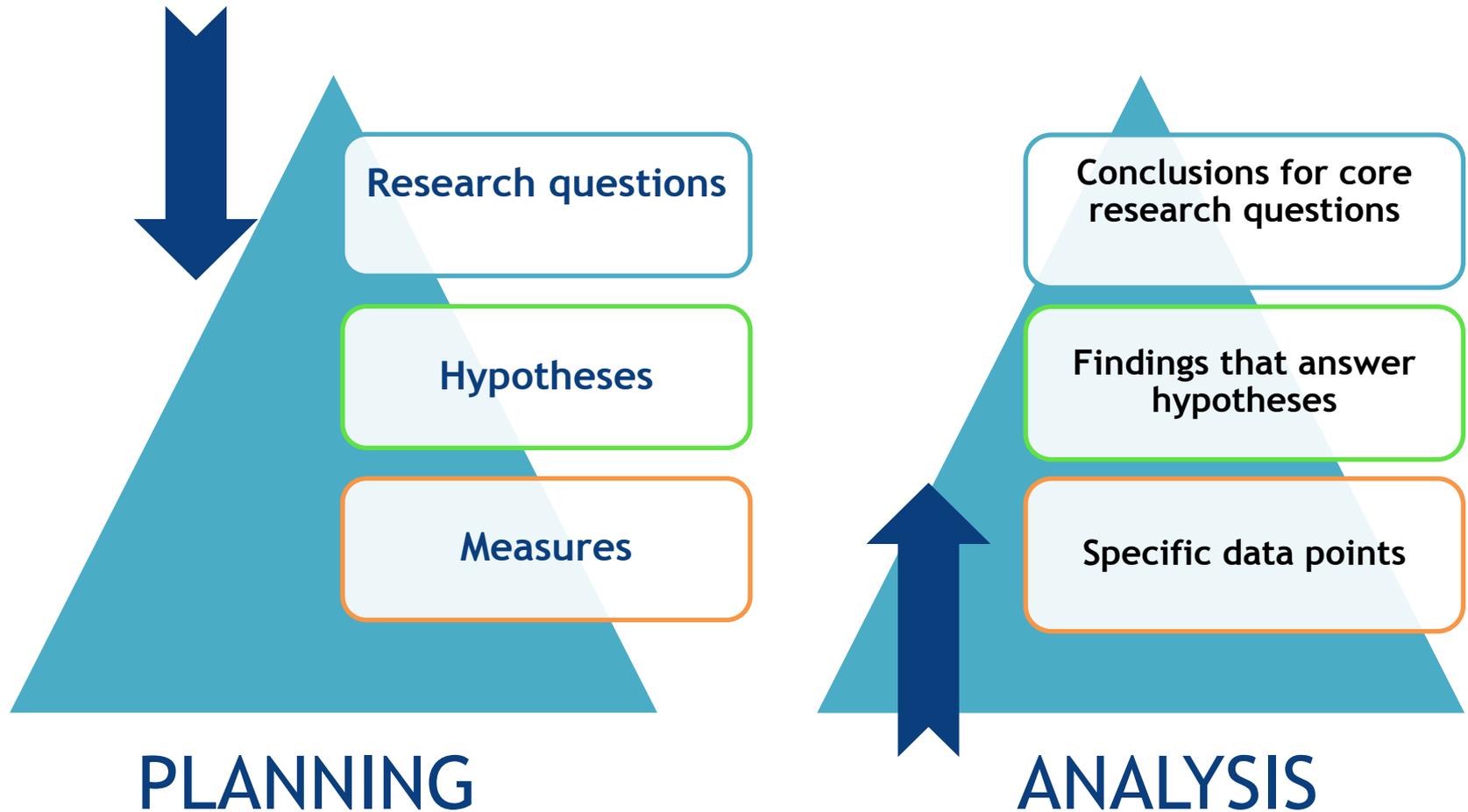
Method & measures:  
pre/post test  
observations four types  
of critical thinking  
skills we teach:

1. Consider multiple options
2. Look to experts
3. Distinguish evidence and interpretation
4. Ask questions





# SHIFTING FROM TOP-DOWN PLANNING TO BOTTOM-UP ANALYSIS



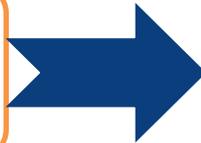


# HOW SHOULD I FRAME MY DATA STORY EXAMPLE? DATA POINTS

Conclusions for core research questions

Findings that answer hypotheses

Specific data points



Critical-thinking skills measures	Pre-test	Post-test
Skill 1: Considering multiple options when problem solving	2.2	4.1
Skill 2: Looking for expert knowledge	4	3.9
Skill 3: Distinguishing between evidence and interpretation	1.8	3.9
Skill 4: Asking clarifying questions	2.2	3.5
Overall means	2.55	3.85



# HOW SHOULD I FRAME MY DATA STORY EXAMPLE? DATA POINTS

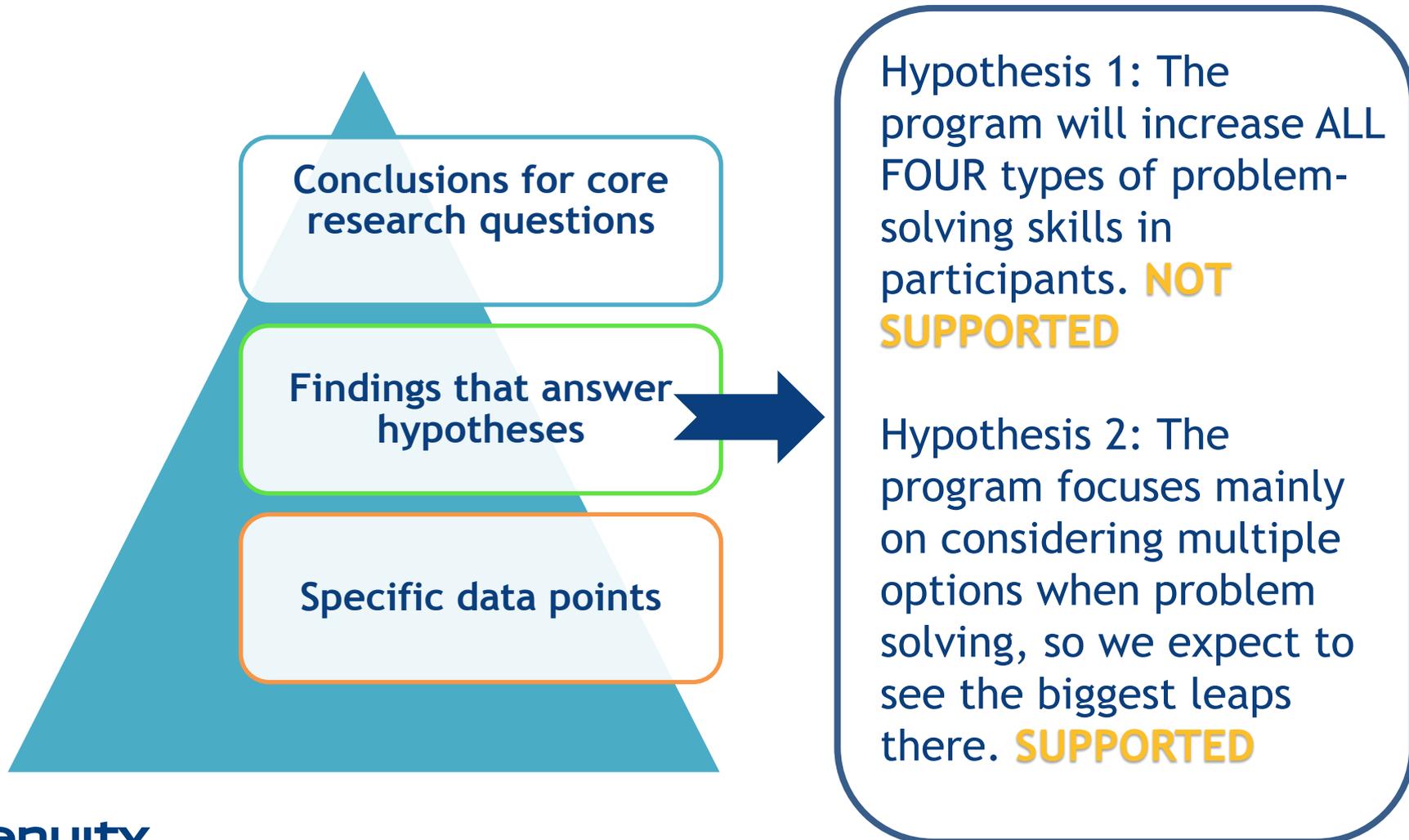
(WHAT TO PAY ATTENTION TO)

- First, answer hypotheses
- Also look at differences
  - Between categories
  - Between pre/post
  - Between years
- And look at changes
  - Biggest
  - Smallest

Critical-thinking skills measures	Pre-test	Post-test	<u>Change</u>
Skill 1: Considering multiple options when problem solving	2.2	4.1	+1.9
Skill 2: Looking for expert knowledge	4	3.9	-.1
Skill 3: Distinguishing between evidence and interpretation	1.8	3.9	+1.1
Skill 4: Asking clarifying questions	2.2	3.5	+1.3
Overall means	2.55	3.85	+1.3



# HOW SHOULD I FRAME MY DATA STORY? ANSWERING HYPOTHESES





# HOW SHOULD I FRAME MY DATA STORY? CONCLUSIONS

Conclusions for core research questions

Findings that answer hypotheses

Specific data points

- The arts program is **improving multiple critical thinking skills** in participating students.
- The program is **boosting three core critical-thinking skills**: considering alternate options, identifying evidence, and asking questions.
- On **one measure, looking for expert knowledge, students did not show the gains we expected to see**. Based on interviews, we believe this is due to X, and we **plan to try Y** during the next program.



# WHAT TO INCLUDE IN YOUR STORY



- Mix of kinds of evidence
- Be objective & offer balance
  - In text AND graphics
- Rightsizing your story