



Carolina Collaborative for Early Childhood Innovation: Evaluation Toolkit



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Evaluation Toolkit**

Acknowledgments

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We hope this toolkit increases both the breadth and depth of understanding when applying principles of responsive, inclusive, and accessible evaluation within your community.

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Chapter 1: Purpose of Toolkit

The purpose of this toolkit is to guide the evaluation of an early childhood innovation program. Evaluation is more than a tool to **prove** if your program worked. It is an ongoing process to **improve** your program by learning what about your innovation worked and what did not work. Typical evaluations report outcomes for the population on average. By using this toolkit, your evaluation will uncover the gaps in who benefits and explore why they exist. Identifying what about the program led to the desired outcome will spark new ideas for more effective innovations. This toolkit is grounded in First Steps' philosophy and approach to evaluation:

First Steps' Approach to Evaluation

First Steps values evaluation that is both ***inclusive*** and ***incorporated*** throughout the implementation process. Our evaluations include quantitative and qualitative methods to offer a rich description of a program's effect. First Steps believes that evaluation is done best when it is incorporated before, during, and after program implementation. Above all, First Steps endeavors to conduct evaluations that are grounded in ***community voice***. Because First Steps is accountable to the people it serves, its program evaluations will be responsive to community perspectives.

This toolkit is made up of different chapters that each contain skill-building activities and reflection questions to apply the learning content to your innovation. Each time an activity or set of reflection questions is introduced, you will see a pencil icon (as pictured below).



Activity

When you see this icon, grab a pencil/pen and jot your thoughts/ideas in the space provided. These activities are intended to spark ideas and reflection throughout your evaluation journey.

Let's begin with your first activity.



Activity 1.1

Vision Casting: Take a moment to reflect on where you are now and where you want to be in six months. In the space below, we encourage you to write down your honest responses to the following questions.

1. How prepared do you feel to implement your innovation project?

2. What do you hope your innovation project will achieve within the next six months?

Chapter 2 Community Engagement

Part 1: Assessing Community Needs and Resources

One purpose of program innovation is to satisfy an unmet community need that currently available programs are not effectively addressing. This chapter will offer guidance on how to determine your community's most modifiable unmet needs. This chapter will discuss:

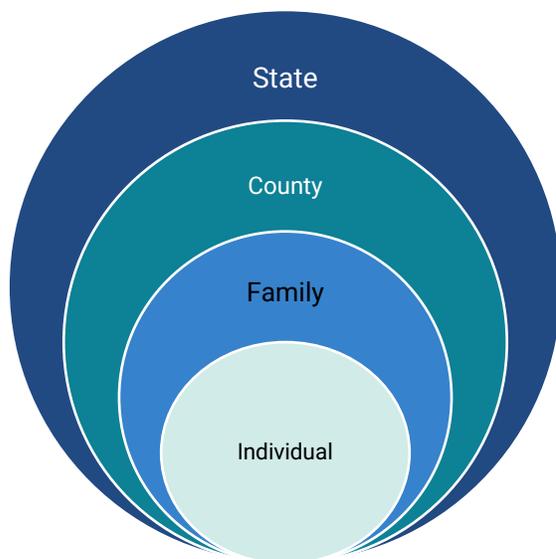
1. How to define needs and resources
2. How to complete a needs and resource assessment
3. How to host community engagement sessions
4. How to prioritize unmet community needs

Defining Needs and Resources

(Adapted from: *Community Tool Box*¹)

Needs are the gaps between what is and what should be. A need can be felt at the individual, family, or community level.

Needs can be tangible, like the need for clean water, or abstract, like increased community pride.



Basic and immediate needs can include the need for nutritious and affordable food, clean water, and safe housing.



Resources are assets, like individuals, organizations, or features of the natural or built environment. Resources enhance life in your community. Your First Steps Local Partnership is an example of a resource in your community.

Example

Consider an example from a Local Partnership Needs and Resource Assessment.

“Of the 18,342 licensed childcare capacity in the county, only 2,194 available slots are in programs with an ABC Quality Rating of A or A+.”

The need above is a greater availability of high-quality (A or A+ quality rating) child care providers in the community. An example of a resource that could address this need is a technical assistance program, like Quality Enhancement or Quality Counts, targeted at providers currently rated a B to improve their quality rating.



Activity 2.1

Work backwards: The goal of this activity is to help you identify needs and resources available in your community.

First, identify at least one resource in your community. Then, describe the need that is addressed by that resource. Use the space provided below to complete the activity.

| Resource | Need |
|----------|------|
| | |

Overview of Needs and Resource Assessment Process

The Needs and Resource Assessment process includes three main components:



Engaging the community in your assessment process is key to its success. Engagement involves bringing together diverse perspectives, lived experiences, and expertise to ensure that your innovation project is inclusive and representative of the needs of all populations within your community. There are many ways to engage the community including: distributing community surveys, hosting discussion groups, holding one-on-one interviews, and many others.

The goal of each method is two-fold: (1) learn what the community members identify as the most pressing needs; (2) gain an awareness of what is currently being done to address the needs and what opportunities may exist. Later in the chapter you will learn more about how to structure your community engagement activities and who to invite.

South Carolina Data Sources for State-Level Data

There are also South Carolina specific data that are made publicly available by state agencies and entities such as:

| | | |
|--|--|--|
| <p>Live Healthy SC⁸ Live healthy SC provides annual data about the State’s progress toward meeting goals of the State Health Improvement Plan (SHIP). You can review data for a variety of health domains including maternal & infant health, chronic disease, and cross-cutting factors like income inequality.</p> | <p>EOC 4K-5K Data⁹ The Education Oversight Committee (EOC) provides reports on the state of early childhood education in their annual state-funded, full day 4K report. Additionally, the EOC is responsible for providing annual updates on the state of kindergarten readiness through their Kindergarten Readiness Assessment report.</p> | <p>SC Report Cards¹⁰ SC Report Cards provides information about a variety of school/district performance indicators including academics and the school environment. You may want to use this resource to gather information on student progress towards state goals. Start by entering a school in the search box to see what data is available.</p> |
| <p>SC Employment Stats¹¹ This site allows you to find information about the labor market including reports on wages and employment, education and job experience, and occupation summaries.</p> | <p>DHEC Community Assessment Network¹² This site allows you to create data tables and interactive maps of public health data.</p> | <p>DSS Data¹³ The Department of Social Services (DSS) site offers an archive of data snapshots (reports) of major social service programs including SNAP, TANF, and Early Care and Education.</p> |
| <p>Dept of Education Data¹⁴ The Department of Education provides a wealth of information on school performance indicators. To access early childhood data, select the “Reports” tab and review data in the “Literacy and Early Learning” heading.</p> | <p>Children’s Trust Data Profiles¹⁵ Children’s Trust is a great resource to review county-level data on child well-being metrics such as economics, education, health, and family/community. You may want to review the “County Data Profiles” for your community.</p> | <p>Healthcare Utilization¹⁶ You can access county healthcare data from the Revenue and Fiscal Affairs office. Database inquiries of interest may include emergency department visits, outpatient surgery, and short-term acute care.</p> |
| <p>SCHealthViz¹⁷ The SC HealthViz website provides geospatial data statistics and maps to help you visualize data. Start by choosing the “Social Determinants of Health” tab, then click the “Exploring SC Social Determinants” heading.</p> | | |



Activity 2.3

What do the data say?: The goal of this activity is to help you review online sources of publicly available data.

First, use the space provided to answer questions 1 through 3. These questions will help you narrow your focus as to what information you would like to learn about your community.

Next, select a publicly available online data source. Consider using one of the national or South Carolina data sources for publicly available, state-level data.

Now, review your data source to find a key statistic that highlights an unmet need in your community. The statistic that you select should help you address your responses to questions 1 through 3.

Finally, use the space provided to answer questions 4 and 5.

1. What would you like to know?
2. Who (which population) do you want to answer it for (for example, which age group, race, region)?
3. At what scale do you want to measure the data (for example, city, county, state, national, or global)?
4. What data source did you select and why?
5. What data were you able to find that help define an unmet community need? Write your key statistic below.

Chapter 2 Community Engagement

Part 2: Identifying and Prioritizing Community Needs

Hosting Community Engagement Sessions

Identifying stakeholders

Community engagement sessions can be held in-person or virtually, based on the needs of your stakeholders. Although the guidance below is designed for in-person sessions, know that it can be adapted for a virtual format. As you prepare to host an in-person community engagement session, an initial step is to determine the community members you would like to invite.



A good approach is to select individuals who have unique expertise that the other members do not share. These individuals will fill gaps in knowledge and support collaborative partnerships. Invite individuals from organizations already engaged in the work your project will address. Above all, be sure to include individuals from the communities your innovation project will serve. Individuals who have the potential to benefit from your innovation project can offer valuable perspectives to inform its development.

Figure 2.1 – Key Stakeholders for Community Engagement Sessions

| | | | |
|---|---|-------------------------|---|
| Prekindergarten through primary educators | Healthcare providers | Faith community | School administrators |
| Family education, training, and support providers | Local government officials, like county and city governments | Business community | Higher education community |
| Child care or early childhood development/education providers | Non-profit organizations that provide services to families and children | Philanthropic community | Caregivers/parents of young children or expecting parents |

Another key individual to include in the process is an external facilitator. An external facilitator will allow you to fully engage as a participant in the discussions rather than having the responsibility of steering them. The First Steps State Office can support you in identifying an individual to facilitate your community engagement session.

Another key individual to include in the process is a notetaker who should be skillful at organizing and synthesizing material. Consider asking your program officer to serve as your notetaker.

Planning your sessions

The success of your community engagement session begins with its preparation and planning. First, identify and define the purpose of your community engagement session. As you think about the purpose of your session, work with your facilitator to select the meeting space, draft a potential meeting agenda, create the guest list, and gather materials for the session. Consider discussing the following topics with your facilitator:

- What day of the week will my session be held? Are there any competing community events I need to be aware of as I select a date?
- How much time do we need? What time works best for those that I am inviting?
- Where will the session be held? Is there a cost associated with using the space?
- How will the room be laid out? Does the space facilitate opportunities for small group discussion?
- What atmosphere do I want to create? How can I bring this to life?
- What resources/information needs to be shared with guests prior to the meeting? How will it be shared?
- Will child care/refreshments be provided?

You can structure the community engagement session in a way that best meets your goals for the session. If you would like a starting point, consider following the example of a “Vision-Casting Community Engagement Session” below. As a reminder, this is simply an example of a community engagement session that can be used as a reference for initial planning discussions with your external facilitator.

Vision-Casting Community Engagement Session

Purpose: The goal of this session is to build trust between your community stakeholders. You want to develop a common vision and values. Once the vision is created, the team can review existing data to understand local needs and resources.

Prior to the session, distribute the agenda and links to data dashboards to participants. Ask participants to review the data dashboards and come to the meeting with any questions or key takeaways that were generated while they were reviewing the data.

Below you will find a potential meeting agenda to support your vision for the session.

Potential Meeting Agenda

- I. Welcome and introductions
- II. Build rapport and trust
- III. Develop a common vision and values
- IV. Understand other local needs and resource assessment efforts or reports
- V. Generate questions and identify needs, concerns, and gaps



Activity 2.4

Create your invite list: The goal of this activity is to help you brainstorm a potential list of individuals you can invite to a community engagement session.

Using the list of key individuals found in Figure 2.1, identify the names of individuals who you will invite to your vision-casting community engagement session. Write these names in the space provided under the column labeled “invitees”.

| Categories | Invitees |
|--|----------|
| <input type="checkbox"/> Prekindergarten through primary educators <input type="checkbox"/> Healthcare providers <input type="checkbox"/> Faith community <input type="checkbox"/> School administrators <input type="checkbox"/> Family education, training, and support providers <input type="checkbox"/> Local government officials, like county and city governments <input type="checkbox"/> Business community <input type="checkbox"/> Higher education community <input type="checkbox"/> Child care or early childhood development/education providers <input type="checkbox"/> Non-profit organizations that provide services to families and children <input type="checkbox"/> Philanthropic community <input type="checkbox"/> Caregivers/parents of young children or expecting parents | |

I. Welcome and introductions

Have everyone in the room introduce themselves with their name and the role they are playing / “hat they are wearing” in the room.

Icebreaker: You can lead an icebreaker activity to set a positive, lighthearted tone. Try the “Name Game”.

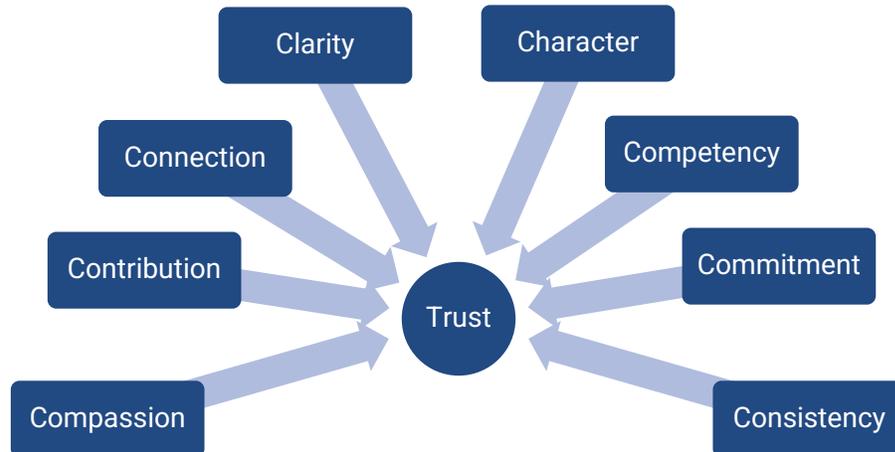
Name Game: Sit in a circle. One person starts by using an adjective starting with the same letter as their first name, followed by their first name (for example, Clever Claire, Kind Karen). The next person has to repeat the first person’s adjective and name and then add their own. It goes around the circle and the last person has to repeat all other names in order and end with their own. To make it more challenging, add more descriptions (for example, where they are from, job title, favorite food).

For example, Kind Karen from Georgia works as a Communications Specialist.

II. Build rapport and trust

As is often said, “Rome wasn’t built in a day”; the same is true about trust. Trust develops over time through an accumulation of actions.

Core values that help build trust:



Adapted from David Horsager's Eight Pillars of Trust¹⁷

Trust usually begins with honesty. In the context of community engagement, it may be shown through an acknowledgement of the history of collaboration. Acknowledging what went well and what could have been addressed differently expresses a sense of ownership that may be well-received. To build trust, people need to know that you care about them as individuals. Being intentional to express gratitude for the contributions at the beginning of the session may be a good first step. Lastly, always reference the “why” behind the work. Throughout the session, remind people of the reason for the work and the people you serve.

- Decenter the space by creating seating arrangements that encourage individuals from diverse backgrounds to intermingle.
- Create a welcoming environment by addressing people by their name.
- Allow time before and after the session for casual conversation and mingling.



Tip!

Consider using one or more of these communication strategies to build rapport and trust.

Turn & Talk Exercise

If you have time, consider this trust-building exercise. Introduce it as an exercise to promote active listening and shared understanding.

Prompt: If resources were unlimited, what is one community need you would want to solve? How would you solve it?

Instructions: Person A introduces themselves and gives an uninterrupted response to the prompt for 3 minutes. Switch. Allow person B to talk, uninterrupted, for 3 minutes while person A listens. Ask each person to summarize and rephrase what the other person said. Come together as a group and discuss what you learned about yourself and/or the other person through this exercise.



III. Develop a common vision and values

To create a sense of alignment between the stakeholders, it could be helpful to unite them around a common vision. Consider holding a conversation around any of the vision and/or value questions below. Use the Brainstorming approaches below to facilitate the conversation.

Vision

- What does a community look like where all children reach their highest potential?
- What are important characteristics of a community that supports children reaching their highest potential for all who live, work, and play there?
- How do you envision the local early childhood system in the next five to ten years?

Values

- What values are the key behaviors that will be required of the local early childhood system partners, the community, and others in the next five to ten years to achieve the vision?
- What type of environment or climate is necessary to support participants in performing the above behaviors and in achieving the vision?

BRAINSTORMING APPROACHES

1-2-4-more

- Ask everyone to individually write down their answer(s) to a question you pose
- Then, have them share with a partner and produce a joint list clarifying each other's ideas and points
- Then, have each pair work with another pair to do the same thing
- Repeat until the entire group is together

Round robin

- Ask everyone to individually write down their answer(s) to a question you pose
- Go around the room having individuals read their answers aloud and post their answers on a flip chart
- After all ideas are shared, work together as a group to organize the ideas and discuss them further

Facilitator Task: Listen closely to what is shared and identify what the answers have in common. Use the commonalities to create a vision statement that outlines what your innovation project hopes to pursue. For example,

“We believe that all families deserve access to high-quality, affordable childcare.”

The vision statement will guide the data questions you ask and ultimately the innovation project.



Activity 2.5

Define your vision and values: The goal of this activity is to help you clearly define the vision and values for your community.

Use the space provided in the figure below to write down the vision and/or value statements that were developed with your community stakeholders during the vision-casting community engagement session.

| Vision | Values |
|--------|--------|
| | |

IV. Understand other local needs and resource assessments

The next step is to look at existing data to identify your community's unmet needs. Follow these steps to facilitate a beneficial conversation.

NEEDS

- Send links to data dashboards ahead of the session for individuals to get familiar with the data. Encourage individuals to bring notes and questions about the data to the meeting.
- Spend time in the meeting to review some of the data. Try hosting a "data walk" by printing data on large posters and hanging these around the room. Encourage participants to walk around the room and write questions/reactions to each poster. Then, come together as a group to discuss common themes that were found while viewing the posters. Questions you may ask to the groups may include:
 - What surprises you?
 - What aligns with your expectations?
 - What data points bring up more questions?
 - Where do you want to dig deeper?
 - What are the top 3-5 needs in your community?



Activity 2.6

What needs exist in my community?: The goal of this activity is to review publicly available data to identify potential unmet needs in your community.

Using the skills you learned in Chapter 2 Part 1 (“Assessing Community Needs and Resources”), review publicly available data and list 2-3 needs that are present in your community.

Next, list 1-2 data points that provide evidence of each identified need in your community.

Then, use the “stoplight system” to color in and identify whether the need is unmet (i.e., red), partially met (i.e., yellow), or fully met (i.e., green) through resources currently available in your community.

An example is provided below for you to review.

Unmet need



Partially met need



Met need



Level of need met?

Unmet need



Level of need met?



Example

Need #1:

High-quality child care

Data to justify the need:

Of the 18,342 licensed child care capacity in the community, only 12% of available slots are in providers with an ABC Quality Rating of A or above.

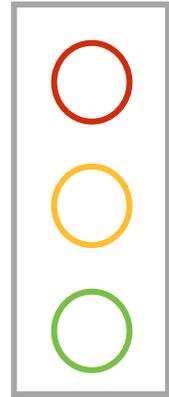
Need #1:

Data to justify the need:

Need #2:

Data to justify the need:

**Level of
need met?**

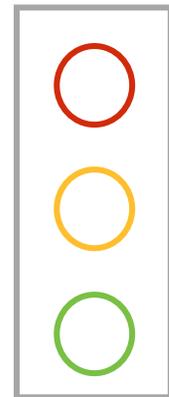


A vertical stack of three circles. The top circle is red, the middle circle is yellow, and the bottom circle is green. All circles are empty and have a thin black outline.

Need #3:

Data to justify the need:

**Level of
need met?**



A vertical stack of three circles. The top circle is red, the middle circle is yellow, and the bottom circle is green. All circles are empty and have a thin black outline.

RESOURCES

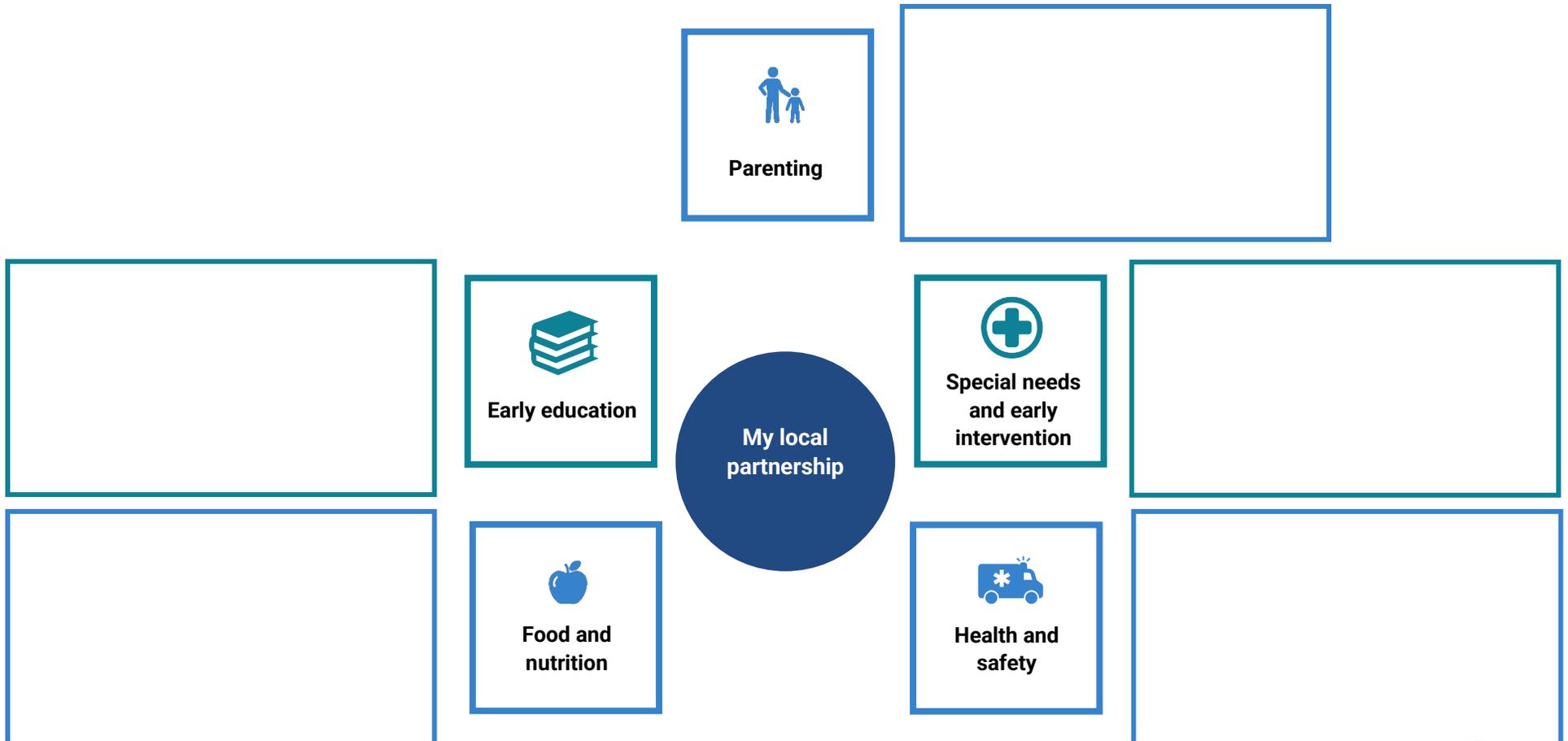
- Complete an asset map that outlines what resources are available within your community. In the template below, resources are broken down into five categories: 1) food and nutrition, 2) early education, 3) parenting, 4) special needs and early intervention, and 5) health and safety. Your asset map will be built in three phases.
 - **Phase 1:** List each agency, organization, or early childhood champion that works within each of the five resource categories. These may be individuals or groups that you have partnered with in the past, currently collaborate with, or would like to work alongside in the future.
 - **Phase 2:** Choose at least 2 resource categories that most align with your community needs. Describe the specific programs, strategies, and activities led by each organization or individual that supports the early childhood system.
 - **Phase 3:** Choose at least 1 resource category and describe the contribution that you envision each organization, agency, or individual could make to help address the unmet need in your innovation project.



Activity 2.7

Phase 1: Below you will find five resource categories. In the space around each resource category, write the names of organizations, agencies, or individuals in your community that support this resource.

Consider writing the name of each organization or individual in a different color. Make a note of how many resource categories each organization or individual is associated with.





Activity 2.7

Phase 2: Choose at least 2 different resource categories that most align with your community needs. Within each resource category, describe the specific strategies, programs, or activities offered by the potential partner organization, agency, or individual that you identified in phase 1.

Consider the following questions as you identify a potential partner.

- 1) Which resource categories address the unmet need in your community?**
- 2) Which organizations or individuals do you currently collaborate with? Who would you like to partner with in the future?**
- 3) Which organizations or individuals could be linked together to maximize the impact of your innovation project?**

Resource Category #1:

Potential partner:

Description of partner's work that supports the early childhood system:

Resource Category #2:

Potential partner:

Description of partner's work that supports the early childhood system:



Activity 2.7

Phase 3: Choose at least 1 resource category that most aligns with the needs identified by your community. For each organization, agency or individual that you identified in Activity 2.7 Phase 1 and Phase 2, describe the specific contribution/role you wish for this organization or individual to play in your innovation project. Identify how the organization's or individual's current work can support the goals of your innovation project.

Consider the following questions as you outline the roles/expectations for your potential community partner during your innovation project.

- 1) Are there any gaps between the resources offered by these organizations and your organization? If so, what other partners might you need to recruit?
- 2) How can you connect with these organizations or individuals to gather support for your innovation project?
- 3) What barriers may you encounter when contacting these organizations to establish partnerships that will support the goals of your innovation project?

Resource Category:

Potential partner:

Description of the expected role the identified partner can play in your innovation project:



Parenting



Early education



Food and nutrition



Special needs and early intervention



Health and safety

V. Generate questions and identify needs, concerns, and gaps

Use the following questions to help you dig into your community's needs and resources. Lead a discussion around these questions.

- Questions for brainstorming
 - Are the identified assets and resources adequate to achieve the common vision?
 - Do the identified assets and resources align with the common values?
 - Are there groups or geographies that do not have equal or equitable access to the identified assets and resources?
 - What are the gaps in the resources and data?
 - What needs did you identify for young children and their families?
 - What concerns do you have about young children and their families?

Prioritizing Needs

The final and most crucial step is to determine the unmet need you are best positioned to address. Work with your stakeholders to exclude needs that are beyond your control and cannot be met with your collective resources. Then, think about your values statement and the gaps you identified in the data. Is there a gap that most aligns with your values? If so, what is being done to address the gap and how can you build upon it?

To prioritize your needs, you will need to carefully weigh the urgency of the need, your organization's capacity, and the scope of the need.

| Urgency | Capacity | Scope |
|--|--|---|
| <ul style="list-style-type: none">• Is there an immediate or time-bound need that has to be addressed?• Is there a need that, if changed, will have a ripple effect on multiple needs (i.e., domino effect)?• Remember, how quickly you can act to impact the need is a key consideration for identifying a focus area for your innovation project. | <ul style="list-style-type: none">• Do you have the staff, partners, agreements, space, technology, and other logistical supports to address this need?• What additional resources may be needed to address this need?• Remember, if you and your partners do not have the organizational capacity to address this need, it may be beyond your current ability to address at this time. | <ul style="list-style-type: none">• What work is already being done in my community to address this need?• Is my need too broad (i.e., increase the number of child care providers) or is my need too narrow (i.e., increase the number of A+ rated child care providers in a specific zip code)?• Remember, your innovation should enhance, not duplicate work. If few resources exist to address this need, it may be an area of focus primed for your innovation program. |

A careful weighing of these principles and your values statement should guide you to an unmet need that your organization is well-positioned to address.



Activity 2.8

Prioritize your need: The goal of this activity is to help you weigh the urgency of the need, your organization’s capacity to address the need, and the scope of the need to help you prioritize which unmet need your organization is well-positioned to address with this innovation project.

Using the needs you identified in Activity 2.6, assess the urgency, capacity, and scope of each need using the gauges below.

To determine the urgency of your need, circle whether the need is “not urgent,” “somewhat urgent,” or “highly urgent.”

To determine the capacity for your need, circle whether your team has “logistical support in place,” “some support is needed,” or “no support in place” to address the identified need.

To determine the scope of your need, circle whether the need is “well-defined & narrow” or “unclear & broad.”

Then, draw a star next to your priority need.

Remember, a priority need is one that is “highly urgent,” that has “logistical support in place,” and that is “well-defined and narrow” in scope. Although your need may not meet all 3 of these criteria, it is best to select a need that meets at least 2 of these criteria. By doing this, your team will identify an unmet need in the community that your organization is well-positioned to address.

Example Need #1: High-quality child care

Urgency



Capacity



Scope





Activity 2.8

Need #1:

Urgency

| | | |
|------------|-----------------|---------------|
| Not urgent | Somewhat urgent | Highly urgent |
|------------|-----------------|---------------|

Capacity

| | | |
|-----------------------------|------------------------|---------------------|
| Logistical support in place | Some support is needed | No support in place |
|-----------------------------|------------------------|---------------------|

Scope

| | |
|-----------------------|-----------------|
| Well-defined & narrow | Unclear & broad |
|-----------------------|-----------------|

Need #2:

Urgency

| | | |
|------------|-----------------|---------------|
| Not urgent | Somewhat urgent | Highly urgent |
|------------|-----------------|---------------|

Capacity

| | | |
|-----------------------------|------------------------|---------------------|
| Logistical support in place | Some support is needed | No support in place |
|-----------------------------|------------------------|---------------------|

Scope

| | |
|-----------------------|-----------------|
| Well-defined & narrow | Unclear & broad |
|-----------------------|-----------------|

Need #3:

Urgency

| | | |
|------------|-----------------|---------------|
| Not urgent | Somewhat urgent | Highly urgent |
|------------|-----------------|---------------|

Capacity

| | | |
|-----------------------------|------------------------|---------------------|
| Logistical support in place | Some support is needed | No support in place |
|-----------------------------|------------------------|---------------------|

Scope

| | |
|-----------------------|-----------------|
| Well-defined & narrow | Unclear & broad |
|-----------------------|-----------------|

Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 3: Pathways of Innovation

At First Steps, we believe early childhood innovation is a commitment to serve the local needs of children, families, and service providers. To best serve our communities, we can adapt our existing programs, within model guidelines, to meet their expressed needs. The Carolina Collaborative for Early Childhood Innovation (CC4ECI) has identified two pathways to innovation:



ADAPT

Pathway #1: Adapt, modify, or enhance an existing evidence-based/evidence-informed (EB/EI) program operated by the partnership to better serve a priority population.



PILOT

Pathway #2: Pilot a program not represented in the First Steps Program and Operational Guidelines to better serve a priority population.

Below is a brief summary and example of five projects that fall within the two innovation pathways.



ADAPT

Pathway 1: ADAPT, MODIFY, or ENHANCE an existing EB/EI program

Pathway 1.1: Adapt or modify an existing EB/EI program

Existing Program:

Countdown to Kindergarten (CTK)

- CTK connects rising 5-year-old children with their soon-to-be teacher in a series of **six, one-on-one visits** during the summer before school entry.

Innovation Program:

CTK "Summer Camp"

- CTK Summer Camp connects rising 5-year-old children with their soon-to-be teacher **and classmates** in a series of **six, group visits** during the summer before school entry.

Example: The innovation in this project is that the CTK program is being modified from **one-on-one visits to group visits**.

Pathway 1.2: Implement an existing EB/EI program in a new priority community or through a new referral pathway

| Existing Program: Parents as Teachers (PAT) | Innovation Program: Connected Families |
|--|---|
| <ul style="list-style-type: none">• PAT is a voluntary, evidence-based program offering families personal visits, group connections, developmental screenings, and connections to community resources to help families raise healthy, safe children that are ready for school. | <ul style="list-style-type: none">• Connected Families is a public-private partnership between the Department of Social Services (DSS) and South Carolina First Steps.• DSS can refer families to a PAT program implemented by a First Steps Local Partnership in 7 counties. These families receive PAT that is tailored to be responsive to their DSS case and other crises. |

Example: The innovation in this project is the referral pathway to PAT (for example, families are referred by DSS to a PAT program implemented by a First Steps Local Partnership) and the targeting of families involved with DSS.

Pathway 1.3: Layer 2-3 existing EB/EI programs

| Existing Programs: Nurse-Family Partnership, Family Connects, Reach Out and Read, The Positive Parenting Program (Triple P) | Innovation Program: Hello Family |
|--|---|
| <ul style="list-style-type: none">• Nurse-Family Partnership is an evidence-based home visitation program that provides first-time mothers with support from pregnancy through their child's 2nd birthday.• Family Connects is an evidence-based program that provides families with a free, at-home maternal and child health screening by a nurse.• Reach Out and Read is an evidence-based program that uses well-child visits to offer families books to promote language and literacy development.• Triple P is an evidence-based program to prevent and treat behavioral and emotional problems. | <ul style="list-style-type: none">• Hello Family provides a continuum of services for families with children under 5 years old in Spartanburg County.• Hello Family layers multiple programs, such as Nurse-Family Partnership and Triple P, to support early childhood development. |

Example: The innovation in this project is the layering of programs to create a continuum of care to support families from the prenatal period through their child's 5th birthday.



PILOT

Pathway 2: Pilot a new program

Pathway 2.1: Add evidence to a promising program not in First Steps' current program catalog

Current Gap in First Steps' Program Catalog:

Lack of health education programs offered in early childhood education centers

- In 2016, approximately one in four children ages 2-5 years old in South Carolina were obese.
- *(Data from the 2018 SC State Health Assessment¹)*
- Many 4-year-olds spend at least 6.5 hours per day in early childhood education centers.

Innovation Program:

Supporting Health and Activity in Preschool Environments (SHAPES)

- SHAPES is an evidence-based, 6-week online education program designed to promote physical activity in early childhood education centers.
- SHAPES is not currently approved by the First Steps Board of Trustees for implementation by local partnerships.

Example: The innovation in this project is to test the feasibility of the SHAPES intervention in three early childhood education centers in the community.

Pathway 2.2: Create a new EB/EI program

Current Gap in First Steps' Program Catalog:

Lack of kindergarten transition programs; low rates of school readiness

- Most children (62%) in South Carolina enter kindergarten not ready to start school.
- *(Data from the 2023 EOC Annual Report of State-Funded Full-Day 4K for Fiscal Year 2021-22 and 2022-23²)*
- There are a lack of school transition programs for families.

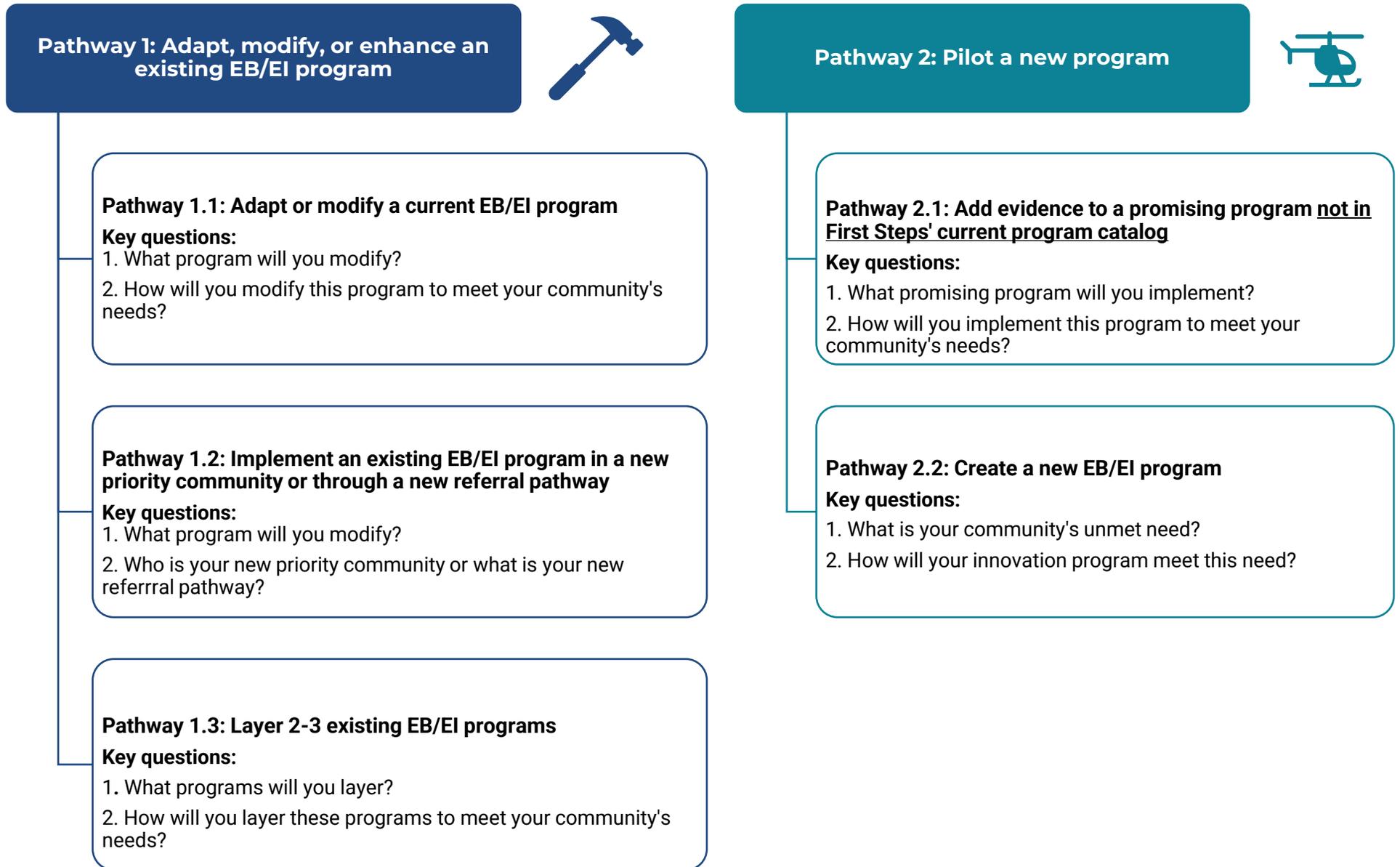
Innovation Program:

Countdown to Kindergarten (CTK)

- CTK is an evidence-informed program that supports smooth school transitions by connecting rising kindergarteners with their soon-to-be teacher in a series of six, one-on-one visits during the summer before school entry.
- *Please note - CTK was developed in 2004 and is currently offered as a program in First Steps' catalog; it is being used in this example to highlight the initial development of a home-grown program in response to an unmet community need.*

Example: The innovation in this project is that a new school transition program was developed by First Steps, and informed by community voice and local partnership feedback, to help support children and families during a key developmental window.

Figure 3.1. Pathways of Innovation Diagram

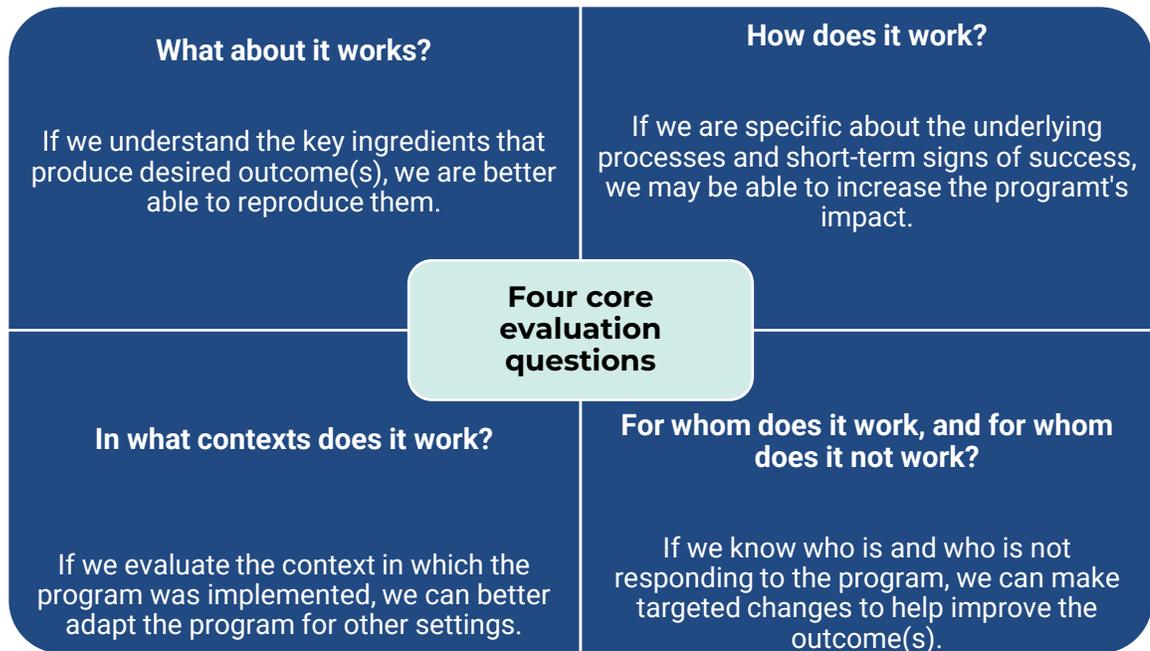


Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 4: Theory of Change

This toolkit's evaluation approach moves beyond asking whether your innovation works, on average, to asking:



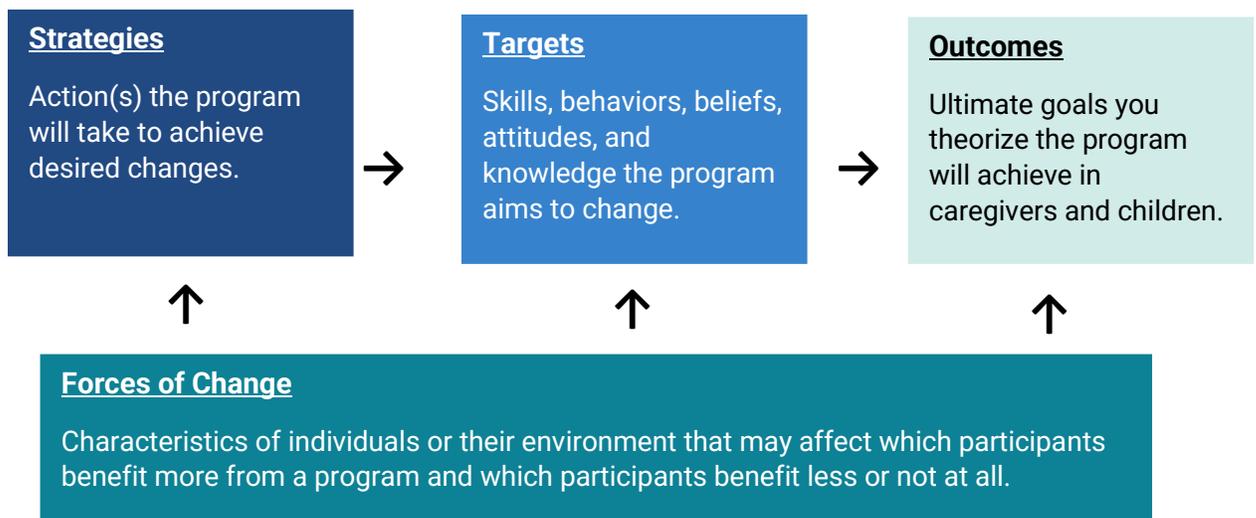
Theory of Change Framework^{1,2}

The Theory of Change (TOC) framework will help you move from having a hunch about how your innovation works towards developing program strategies that can be tested. Remember, **the ultimate purpose of this evaluation is to IMPROVE, not PROVE**. This evaluation aims to improve the program, not prove that it works.

In this section, you can make changes to your initial draft of your TOC which will guide your innovation design.

What is a TOC?

A TOC is a detailed set of beliefs about specific changes that you propose will result from your program. A TOC is a tool that can be used to help you answer the four core evaluation questions. There are four domains in the TOC template: strategies, targets, outcomes, and forces of change.



When building your Theory of Change, it is important to ensure that your strategies, targets, outcomes, and forces of change are S.M.A.R.T.! The S.M.A.R.T. acronym reminds us that our domains should be specific, measurable, achievable, relevant, and time-bound. Figure 4.1 describes the S.M.A.R.T. acronym in further detail.

Figure 4.1 – Building a S.M.A.R.T. Theory of Change

Specific

- Be as specific as possible. Explain exactly what will change and by how much.
- Consider the four W's - **what, who, when, and where**:
 - **What** is the strategy, target, or outcome that you are measuring?
 - **Who** will deliver the strategy? **Who** is the receiving the strategy? **Who** will measure the target/outcome? **Who** will you measure the target/outcome for?
 - **When** will the strategy be implemented? **When** will the targets/outcomes be measured?
 - **Where** will the strategy occur? **Where** will the targets/outcomes be measured?

Measurable

- To observe a change, you have to measure it.
- Identify whether you expect to see an increase or decrease in a target or outcome. Identify "how much" of a change you expect to see.
- Identify what amount of change is meaningful.
- Identify what tool you will use to measure/track this change.
- Identify if the forces of change can be measured so that you can better disaggregate data.

Achievable

- Program strategies, targets, and outcomes should be doable and measurable within the scope of your grant timeline and budget.

Relevant

- Program strategies should be linked to your targets and outcomes.
- Program strategies should work together to produce desired changes in your outcomes.
- If a strategy cannot be linked with an outcome, it may not be useful for this program.
- Targets should lead to outcomes.

Time-bound

- Program strategies, targets, and outcomes should be completed within your grant timeline.
- Identify when strategies will be implemented.
- Identify when targets and outcomes will be measured, and how often they will be measured (for example, pre and post program).

Below you will find a brief description of each domain of the TOC. In each section, you will be invited to complete some activities that may help you refine, clarify, and strengthen your TOC. To apply the TOC, follow the example of a university carry-out pizzeria that adopted a delivery option to increase sales. The idea of applying the Theory of Change framework to a pizzeria was introduced by colleagues at the Institute for Child Success.³ On the first customer experience survey, customers described transportation barriers as the primary reason for infrequent purchases. Based on this data, the store owners decided to ADAPT their service option and offer delivery. Their long-term goal is to reach customers with transportation barriers and transform them into a reliable clientele.

Outcomes

Outcomes are the ultimate goals you theorize the program will achieve in parents/caregivers and children. Outcomes may include short- and long-term changes (for example, things you would expect to be different by the end of the program vs. things that may take more time to change). Consider labeling your outcomes by their intended population (for example, child outcomes, parent/caregiver outcomes) and whether they are short- or long-term.



Example

Short-term outcome: The university campus pizzeria will sell 400 pizzas in the first month it is open.

Long-term outcome: 75% of pizza orders to the university campus pizzeria will select the delivery option during the first three months the pizzeria is open.

To measure whether your project had an impact on the outcome, you will need to select a measurement tool. We encourage you to consider all the measurement tools you currently use to track the impact of your programs. Using existing tools can help you avoid reinventing the wheel.



Activity 4.1

Start with the end in mind: The goal of this activity is to help you identify the outcome(s), or the ultimate goal(s), you would like to achieve through your early childhood innovation project.

Use the space provided to answer the following questions.

1. What is/are the ultimate goal(s) you are trying to achieve with your early childhood innovation project?

2. Rewrite your goal(s) using the S.M.A.R.T. acronym and the following template.

(Population of focus)'s (outcome you are measuring) will (increase/decrease) by (insert an amount) by (a specific date or within a specific time frame).

For example:

The university campus pizzeria's average monthly number of pizzas sold will increase by 10% by December 1, 2024.

3. How will you know if your innovation project was successful?

4. What measurement tools do you currently use to track the impact of your programs? Can any of these be repurposed for this innovation project?

5. If you cannot repurpose any of your existing tools for this project, how do you propose to measure your goal for this project?

Strategies

Strategies are the key ingredients (core program activities) that will help you achieve changes in your targets and outcomes. Strategies should be boiled down to their simplest form. Strategies can be person-based, place-based, technology-based, or other types of activities.

Example

Person-based: The university campus pizzeria will develop a memorandum of understanding (MOU) with DoorDash and UberEats for the online delivery option.

Place-based: Customers have the option to purchase pizzas in-store for carry-out Monday through Saturday from 12 pm to 9 pm or online for delivery Monday through Saturday from 12 pm to 9 pm.

Technology-based: The campus university pizzeria will advertise the new online delivery option in the monthly campus newspaper and weekly campus social media post.

Strategies can be labeled as “same” or “new.” Strategies that are unchanged by your innovation and are aligned with existing model guidelines are considered the “same”. Strategies that result from your innovation and are not aligned with existing model guidelines are considered “new.”



Tip!

Strategies usually begin with an **action verb** and include **who** is doing the action.



Activity 4.1

Identify your key ingredients: The goal of this activity is to help you identify the strategies, or the core program activities, that your project will use to help you achieve the desired changes in your targets and outcome(s). This activity will also help you map out the logistical details of how you will implement the strategies for your innovation project.

Use the space provided in Table 4.1 to answer the four W's (i.e., what, who, when, and where) for at least 2 strategies that you will implement in your innovation project.

An example, highlighted in gray, is provided in Table 4.1.

| Table 4.1 – Identify Your Key Ingredients (Strategies) | | | |
|--|---|-------------|-------------|
| | Strategy (Example) | Strategy #1 | Strategy #2 |
| What is the strategy? | Delivery option – Create a web-based ordering platform for delivery orders. | | |
| Is the strategy the same or new? | New | | |
| Who will receive the strategy? | University campus customers. | | |
| Who will deliver the strategy? | The software system will be monitored (for new orders) daily by the shift team leader at the pizzeria. | | |
| When will the strategy be delivered? | Pizza orders are eligible for delivery every day during business hours. | | |
| Where will the strategy be delivered? | Promotion of the online platform will be pushed on university social media channels and the pizzeria website. | | |

Targets

Targets are short-term signs that your project activities may lead to changes in your long-term outcome(s). Targets are the skills, behaviors, beliefs, attitudes, and knowledge the project aims to change and where you expect to see the greatest impacts.



Tip!

If the desired outcomes are not achieved, targets may help explain where the breakdown occurred.

Example

Customer Targets: Increase customer knowledge of delivery option by including an informational flyer with 100% of orders during the first 30 days of implementation.

Staff Targets: 95% of delivery orders are delivered within 45 minutes of the customer order each month.



Activity 4.2

Are we moving in the right direction?: The goal of this activity is to help you identify the targets, or the short-term signs that your project is on the path to achieving the desired changes in your outcome(s).

Use the space provided in Table 4.2 to answer the three W's (i.e., what, who, and when) for at least 2 targets that you aim to achieve with your innovation project.

An example, highlighted in gray, is provided in Table 4.2.

| | Target (Example) | Target #1 | Target #2 |
|-------------------------------------|---|-----------|-----------|
| What is the target? | Customer knowledge | | |
| What will be measured? | The total number of fliers delivered. | | |
| Who will share their data? | Staff will record the number of fliers distributed. | | |
| When/how often will data be shared? | Fliers will be distributed and tracked monthly. | | |
| What measurement tool will be used? | An Excel sheet will be used to track numbers. | | |

Forces of Change

Forces of change are characteristics of individuals or their environment that may affect which participants benefit more from a program and which participants benefit less or not at all. Forces of change help explain individual differences in response to a program, moving us beyond asking, “Does it work?” to understanding, “For whom does it work or not work?”

Example

Delivery service driver tenure: Drivers that have been delivering pizzas for a longer amount of time may have faster delivery times.

Customer location on campus: Some campus locations, such as the northeast corner of campus, may be harder to reach and may impact the timing of delivery (i.e., may have longer delivery times).

Congrats! You have now mapped out the logistical details of what you will measure and how you will collect data on your project’s outcomes, targets, and strategies. Now you can combine these components in your Theory of Change.

Theory of Change: Worked Example

Let’s make this simple! Use the following examples as a guide to create a Theory of Change for your innovation project. Below you will find two worked examples – one for a project that follows the ADAPT innovation pathway and one that follows the PILOT innovation pathway.



ADAPT

Let’s say you own a carry-out pizzeria at a local university. Based on customer feedback, you decide to adapt your business model and include a delivery option for students.



PILOT

At the same campus pizzeria, you decide to expand your menu to include boneless chicken wings.

Theory of Change Worked Example – ADAPT: Pizza Delivery Option for University Campus Pizzeria



| <p>STRATEGIES THAT ARE THE SAME Program actions to achieve desired changes.</p> | <p>TARGETS Skills, behaviors, beliefs, attitudes, and knowledge directly targeted by the program strategies.</p> | <p>OUTCOMES Ultimate goals you hope the program will achieve. Indicate for each population (e.g., Parents/caregivers and children).</p> |
|--|--|---|
| <p>Sell Pizzas: Sell 400 pizzas each month.</p> <p>Carry-out option: Customers purchase pizzas in store for carry-out, Mon-Sat 12pm – 9pm.</p> <p>Promotion: Advertise in campus monthly newspaper and weekly campus social media posts.</p> | <p>Customer Targets:</p> <ul style="list-style-type: none"> Increase customer knowledge of delivery option by including an informational flyer with 100% of orders during the first 30 days of implementation. <p>Staff Targets:</p> <ul style="list-style-type: none"> 95% of delivered pizzas are accurate to customer order each month. 95% of delivery orders are delivered within 45 minutes of the customer order each month. | <p>Short-term Outcome:</p> <ul style="list-style-type: none"> 400 pizzas will be sold each month <p>Long-term Outcome:</p> <ul style="list-style-type: none"> 75% of pizza orders will use the delivery option. |
| <p>STRATEGIES THAT ARE DIFFERENT The defining characteristics that set your innovation apart</p> | | |
| <p>Delivery option: Create online platform for customers to order delivery. Pilot test during first month.</p> <p>Food Delivery Services: Develop memorandum of understanding (MOU) with UberEats and DoorDash for campus delivery.</p> <p>Delivery Service Mapping: Map boundaries for delivery service area. Track most popular locations for delivery.</p> | | |
| <p>Forces of Change Characteristics of individuals or their environment that may affect which participants benefit more from a program and which participants benefit less or not at all.</p> | | |
| <p>Delivery service driver tenure- Drivers that are more experienced may have faster delivery times.</p> | | |

Theory of Change Worked Example – PILOT: New Menu Option for University Campus Pizzeria



| <p align="center">STRATEGIES</p> <p align="center">Program actions to achieve desired changes.</p> | <p align="center">TARGETS</p> <p align="center">Skills, behaviors, beliefs, attitudes, and knowledge directly targeted by the program strategies.</p> | <p align="center">OUTCOMES</p> <p align="center">Ultimate goals you hope the program will achieve. Indicate for each population (e.g., Parents/caregivers and children).</p> |
|--|---|---|
| <p align="center">Sell Pizzas: Sell 400 pizzas each month.</p> <p align="center">Carry-out option: Customers purchase pizzas in store for carry-out, Mon-Sat 12pm – 9pm.</p> <p align="center">Promotion: Advertise in campus monthly newspaper and weekly campus social media posts.</p> <p align="center">Sell Boneless Wings: Add 5, 10, 15 count Buffalo or Hot wing option to menu.</p> <p align="center">Promotion: Include advertisements about new menu item in monthly newspaper and campus social media posts</p> | <p>Customer Targets:</p> <ul style="list-style-type: none"> • Increase customer knowledge of new menu item by including an informational flyer with 100% of orders during the first 30 days of implementation. <p>Staff Targets:</p> <ul style="list-style-type: none"> • 95% of wing orders are accurate to customer order each month. | <p>Long-term Outcome:</p> <ul style="list-style-type: none"> • 50% of pizza orders each month will include wings. |
| <p align="center">Forces of Change</p> <p align="center">Characteristics of individuals or their environment that may affect which participants benefit more from a program and which participants benefit less or not at all.</p> | | |
| <p align="center">Customer dietary restrictions- Vegan/Vegetarian customers may not purchase wings.</p> | | |



Activity 4.2

Develop your Theory of Change: The goal of this activity is to develop the Theory of Change for your innovation project.

First, think about whether your innovation project will adapt an existing evidence-based/evidence-informed program or pilot a new program.

Then, use the appropriate Theory of Change template below to fill in the boxes representing the strategies, targets, outcomes, and forces of change for your proposed innovation project. Consider visually linking (using arrows) each strategy with its intended targets. This will clarify which strategies are anticipated to impact each target.



Theory of Change: ADAPT

| STRATEGIES THAT ARE THE SAME Program actions to achieve desired changes. | TARGETS Skills, behaviors, beliefs, attitudes, and knowledge directly targeted by the program strategies. | OUTCOMES Ultimate goals you hope the program will achieve. Indicate for each population (e.g., Parents/caregivers and children). |
|--|---|--|
| | | |
| STRATEGIES THAT ARE DIFFERENT The defining characteristics that set your innovation apart. | | |
| | | |
| Forces of Change Characteristics of individuals or their environment that may affect which participants benefit more from a program and which participants benefit less or not at all. | | |
| | | |



Theory of Change: PILOT

| STRATEGIES Program actions to achieve desired changes. | TARGETS Skills, behaviors, beliefs, attitudes, and knowledge directly targeted by the program strategies. | OUTCOMES Ultimate goals you hope the program will achieve. Indicate for each population (e.g., Parents/caregivers and children). |
|--|---|--|
| | | |
| Forces of Change Characteristics of individuals or their environment that may affect which participants benefit more from a program and which participants benefit less or not at all. | | |
| | | |

Great work! Now that you have your Theory of Change in hand, you can choose the best evaluation design that can help you understand what worked well in your early childhood innovation project. On any journey, there may be multiple routes that you can take to arrive at your destination. For your early childhood evaluation project, these “routes” correspond to the different evaluation designs that can be used to understand the feasibility, reach, and impact of your project. The next chapter will introduce you to the different evaluation designs that can help you determine which route will work best for your journey.

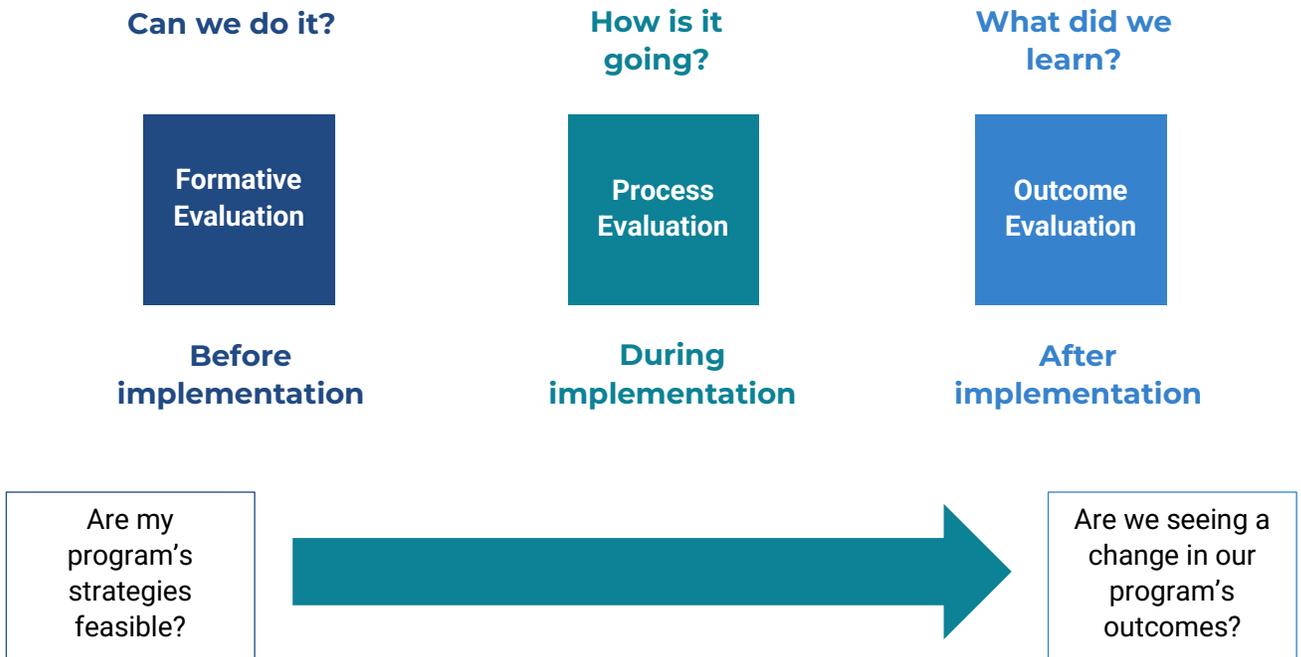
Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 5: Introduction to Evaluation

An evaluation design is the method you will choose to gather information and data to answer your early childhood innovation project's evaluation question(s). Evaluation is an ongoing process, that seeks to improve, not prove. The type of evaluation design that you select will depend on your innovation pathway, where you are in your project's implementation cycle, and what your team wants to learn from the evaluation. In practice, the spectrum may not be as linear as shown in the figure below. You may cycle through the evaluation designs in any order depending on the evaluation needs of your project.

Figure 5.1. Spectrum of Evaluation Designs



As you move along the general spectrum of evaluation designs, your focus will shift from evaluating a set of program strategies in a formative evaluation (i.e., the preliminary evaluation design which investigates whether program strategies are feasible and acceptable) to evaluating the impact of your Theory of Change in an outcome evaluation (i.e., the ultimate evaluation design which investigates the impact of program strategies on program targets and outcomes). Your focus may shift from asking "Can we do it?" to "What did we learn?"

Generally speaking, as you move along the spectrum of evaluation designs, your sample sizes should get larger, and you will begin to use validated tools that boost confidence in your outcomes.

Below you will find a summary of the key questions, Theory of Change domains, and information you will be able to collect for each type of evaluation design.

| Formative Evaluation | Process Evaluation | Outcome Evaluation |
|---|---|---|
| <ul style="list-style-type: none"> • Key Question: Are my project's strategies feasible and acceptable? • Can I implement the project successfully with my priority population? • Do my participants like the program? • Theory of Change domain: Strategies • Gather information on: <ul style="list-style-type: none"> • Who am I serving? • How is recruitment going? • How is retention going? • Is this scalable? | <ul style="list-style-type: none"> • Key Question: Are my project's targets moving in the expected direction? • Theory of Change domain: Targets • Gather information on: <ul style="list-style-type: none"> • Am I "moving the needle" on my project's targets? • Did my participants' behavior change in the way I expected? | <ul style="list-style-type: none"> • Key Question(s): <ul style="list-style-type: none"> • Reach: Did we serve our intended population? and • Impact: Did my project have an impact on participants' behaviors and outcomes? • Theory of Change domain: Strategies, Targets, and Outcomes • Gather information on: <ul style="list-style-type: none"> • Who did I serve? • Did my outcomes change as expected? • Who benefitted the most from the program? the least? |

Learning the evaluation designs will help you initiate and progress through the implementation cycles. For the first implementation cycle, a formative evaluation may be most valuable for new programs that have never been tested. It will reveal if the program can be implemented successfully and if it was acceptable to participants.

If the program has proven acceptable, the next step is to evaluate whether the project's targets were reached through a process evaluation (i.e., the intermediate evaluation design which investigates whether the project's targets change in the expected direction).

Targets are the short-term or proximal attitudes, skills, and beliefs that can serve as an intermediate indicator that your project's strategies (i.e., the specific program activities expected to produce a change in your project's outcomes) are moving towards an expected change in your project's outcomes (i.e., the ultimate goals you theorize the project will achieve in caregivers and children). Positive and negative findings in your targets are equally valuable because they provide direction on how to proceed. If the project did not reach the target goals, there is an opportunity to change strategies and complete a new formative evaluation. If the target goals were reached, then an outcome evaluation would be most valuable.

The focus of an outcome evaluation is to look back at all the outcome data to determine the project's reach and impact. In an outcome evaluation, you will begin to uncover whether your project served its intended population and whether your project was associated with measurable changes in participants' outcomes.

Data for Evaluation Designs

Across evaluation designs, data are needed to determine the success of your innovation project. Evaluation data fall within two broad categories: quantitative and qualitative. Quantitative data are the numeric values that describe what happened in your project. Qualitative data are the words that tell how changes occurred and why things happened in your project. Together, these two categories of data can help you paint a robust picture of the reach and impact of your project. These two pillars of data are used in each evaluation design. In the following chapters, you will apply these data pillars to answer questions that align with the evaluation design you choose.



Quantitative data are numeric values that can be continuous (i.e., numbers that can have any value within a given range and can include fractions and decimals) or discrete (i.e., numbers that can be counted).

For example, in a formative evaluation you may report the percentage of families who attended 12 group sessions. This percentage gives a sense of how achievable the group meeting program requirement was for your participants.

85%
of families in the healthy eating group attended 12 group sessions

More advanced quantitative data are often used in outcome evaluations through statistical models that examine the project's impact on an outcome. For example, a statistic may demonstrate differences in the project's impact by child demographic characteristics.

Children with no siblings recalled twice as many vocabulary words as children with siblings. The difference was statistically significant.



Qualitative data are verbal (written or spoken) data that examines participants' program experience using a broader contextual lens. Qualitative data are usually gathered using surveys, interviews, or focus groups. These data are valuable because they add context to the story of your project.

For example, through quantitative analyses you may find that children with younger siblings retain fewer spelling words on the post-test. Qualitative interviews may reveal that mothers often interrupt their home-based vocabulary lessons with their older child to care for their newborn.

"My son and I usually practiced his spelling words together around 4:30. We originally picked this time because it was before he went to karate, but we found out that my youngest daughter, who is 6 months old, typically wanted to be fed at this time too. I'd leave my son to practice on his own since he is older (8 years old) while I cared for my daughter."

Evaluation Scenario

Throughout the remainder of the toolkit, we will apply the following evaluation scenario to illustrate evaluation concepts. Please familiarize yourself with the scenario below for your reference.

Example

A university carry-out pizzeria adopted a delivery option to increase sales. On the first customer experience survey, customers described transportation barriers as the primary reason for infrequent purchases. Based on these data, the store owners decided to ADAPT their service option and offer delivery. Their long-term goal is to reach customers with transportation barriers and transform them into a reliable clientele.

Choose your Adventure!

Work with your project team to identify which evaluation design is needed first to evaluate your innovation project. To guide you through the remainder of the toolkit, use the following symbols to lead you to the next chapter.

A beaker will be used to highlight chapters that present information about formative evaluations.



Formative

A whisk will be used to highlight chapters that present information about process evaluations.



Process

A flower will be used to highlight chapters that present information about outcome evaluations.



Outcome

Throughout the remaining chapters of the toolkit, look in the top right-hand corner of the first page of each chapter. A symbol corresponding to the specific evaluation design will help you quickly identify what type of information will be presented in the chapter.

Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 6: Measurement Matters

Part 1: Measurement Selection and Data Collection



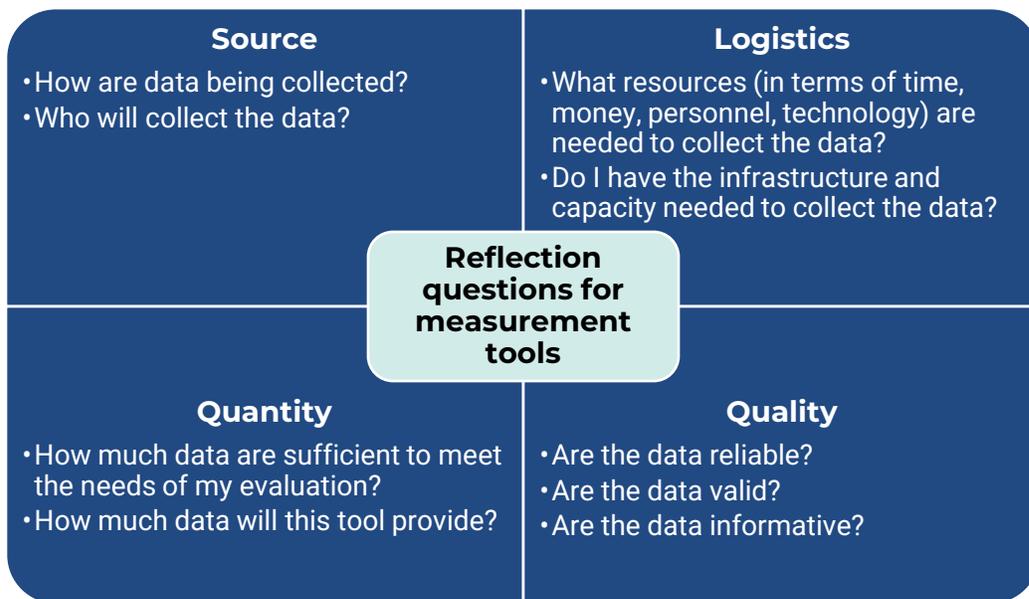
To evaluate your innovation project, you will need to collect data about its reach and impact. **Measures** are the tools we use to gather information about program performance and its impact on the population. **Measurement** is the process of identifying what you want to learn, what resources are available to gather information, and determining how data will be used and by whom. Understanding what a measurement tool truly measures will guide you in selecting the best tool for your project. The measures you select will present data that will guide your decision to improve, adapt, or scale your programs. Below you will find questions to consider as you choose your measures.

Data Collection: Selecting a measurement tool

There are four key areas to consider when you select a measurement tool:

- 1) the source of the data,
- 2) the logistical resources needed to collect the data,
- 3) the quantity of data available, and
- 4) the quality of data available.

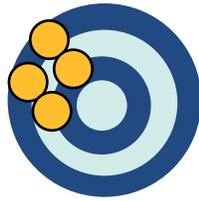
Below are some questions to ask yourself when you are selecting a measurement tool.



Reliability reflects the consistency of a tool. In other words, can the tool produce similar results over repeated measurements? Reliability coefficients can range from 0 to 1, with a score of 1 reflecting perfect reliability.

Validity reflects the accuracy of a tool. In other words, do the results of the tool represent what they are expected to measure? Good validity is not possible without good reliability.

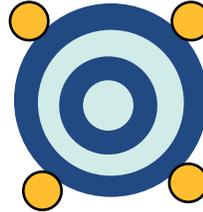
The difference between reliability and validity can be understood by imagining a dartboard. When playing darts, the goal is to land the dart on the centermost circle (i.e., the bullseye).



Target A

Poor validity,

**Good
reliability**



Target B

Poor validity,

**Poor
reliability**



Target C

Good validity,

**Good
reliability**

- a. If a person throws six darts and they all land on the upper left corner of the dartboard, there is good reliability, but poor validity (see target A).
- b. If a person throws six darts and they land scattered outside of the dartboard, there is both poor reliability and poor validity (see target B).
- c. If a person throws six darts and they all land in the center of the bullseye, there is both good reliability and good validity (see target C).
- d. Good validity is not possible without good reliability.

Although reliability and validity are important factors to consider when selecting a measurement tool, it is also important to consider whether the tool is affordable and accessible. When selecting a measurement tool, it is also important to check the model guidelines for the program that you are implementing to determine whether there are recommended or required measurement tools. Some programs recommend or require specific measurement tools be used to assess outcomes related to the program.

If a program does not require or recommend specific measurement tools, consider using the IMPACT Measures Tool¹ to identify options for measurement tools. The IMPACT Measures Tool is a free, online database that can be used to identify early childhood and parenting measures that may fit the needs of your community and your innovation project. The IMPACT Measures Tool website also includes a short, 3-minute video that explains how to use the tool to find a measure that meets the needs of your community.

When selecting a measurement tool, you can also review previous tools that your organization may have used to assess the impact of your program. For example, if your organization has used a survey to assess program satisfaction among parents/caregivers participating in Parents as Teachers in your community, you may be able to use this survey as a template to assess program satisfaction among parents/caregivers participating in your new parenting program. The state office of South Carolina First Steps has a repository of survey templates and questions that can be used to evaluate your innovation program. A survey template of satisfaction questions is included in Appendix A.

If you choose to measure an outcome at two points in time, such as before a participant enrolls in your project and after the end of your project, it is important that your measurement tool uses the same questions at both measurements. By using the same questions at both time points, you will be able to measure differences in the outcome.



Activity 6.1

Review your tool(s): This activity will help you answer the reflection questions that can be used when selecting a measurement tool.

First, select a measurement tool that your organization currently uses to measure the impact of a program that you currently implement. You should try to select a tool that is from a program that you are adapting or from a program that is similar to what you are piloting. For example, if your organization currently implements Parents as Teachers, you may select the Healthy Families Parenting Inventory (HFPI) for this activity.

Next, go online and search “reliability” of the “Healthy Families Parenting Inventory.”

Then, answer the questions below.

1. What does this tool measure?
2. Is there evidence that this tool is reliable? If yes, what evidence is there of the reliability of this tool? (For example, the reliability of the tool ranged from 0.75 to 0.80.)

Next, go online and search “validity” of the “Healthy Families Parenting Inventory.”

Then, answer the questions below.

1. What tool did you select to review?
2. What does this tool measure?
3. Is there evidence that this tool is reliable? If yes, what evidence is there of the reliability of this tool?
4. Is there evidence that this tool is valid? If so, what evidence is there of the validity of this tool?

Measurement Capacity Questions

Now that you have reviewed the reliability and validity of the measurement tool, the next step is to determine if it aligns with your priorities in terms of cost, usability, and cultural relevance.

- 1) Cost – How much does the measure cost? How easy is the measure to access? For example, can the measure be downloaded? Is it available online?
- 2) Usability – How easy is the measure to administer and interpret the results? Does the measure require a high level of training before it can be used?
- 3) Cultural relevance – Does this measure serve different groups? Was the measure developed for use in a single group, country, or program? Were steps taken to prevent measurement bias?



Tip!

Check out this video, “How to Choose a Measure,” by the Institute for Child Success² on how to select a measurement tool that is aligned with the purpose and needs of your project.

Data Collection: Data Preparation Principles

As you collect data, it is important that your data are complete, timely, and clean. By meeting these three principles, you should be able to present your data in a clear format that is ready for data analysis.



Complete

- **Minimize the amount of missing data**
- Although some missing data are unavoidable, ensure that all data are collected, when possible
- **Use a detailed record keeping tool to ensure that each measure is assessed for each participant at each time point**
- Participant non-response or unassessed measures can present challenges to determining your project's effect
- **Select measures with minimal participant burden**
- Resolve barriers to completion and use consistent follow-up prompts to get complete data



Timely

- **Determine clear start and end dates for data collection**
 - Gather all available data in this time frame to maximize confidence in the findings
 - For example, findings about pizza sales during the summer based only on data from the month of August do not reflect the totality of sales across the entire summer (i.e., May through August)
- **Be clear and consistent with how time is reported**
 - For example, if you are collecting individuals' ages, collect all data in the same time frame (for example, months)



Clean

- **Spot check your data files**
- Verify that any missing data points are truly missing (i.e., the data were not collected)
- Check for typos
- **Create a codebook for your data**
 - A codebook is a guide that describes the names of variables in your file
- **Time spent cleaning data is time saved during analysis**
- Organize your data in a clear and logical order

Chapter 6: Measurement Matters

Part 2: Analyzing Quantitative Data

In Chapter 5 (“Introduction to Evaluation”), we introduced two domains to categorize data: quantitative and qualitative. The decision to use quantitative versus qualitative methods, or some combination of the two, will depend on where you are in your project’s implementation cycle, what your team wants to learn from the evaluation, and the source of your data. The next section will introduce some common measurement methods that can be used within each domain.



Quantitative Methods

Quantitative methods provide a numeric summary of the sample of individuals that participated in your program. Quantitative methods can help us answer questions related to who, how many, what, and when.

| Who/How Many? | What? | When? How long? |
|--|--|--|
| <ul style="list-style-type: none">• Who participated in your program?• Example: The goal of Support & Serve was to provide bi-weekly group parenting classes to military families. These classes would support families before, during, and after deployment. During the first 6 months of the program, over 1 in 3 families had a parent/caregiver that was currently deployed.• How many people attended all seven group sessions?• Example: Ten participants (75% of enrolled participants) attended all seven group sessions. | <ul style="list-style-type: none">• What changes in outcomes were observed among participants at the end of the program?• Example: Among families that received five home visits from a community health worker, 20% experienced an improvement in their physical activity. Among these families, average daily physical activity increased from 10 minutes per day at baseline to 30 minutes per day after five home visits. | <ul style="list-style-type: none">• When did changes occur in a participant's outcomes?• Example: Between week 1 and week 7, the number of sight words recognized by children in the program increased by 20%.• How long did group sessions last?• Example: On average, group sessions lasted for 45 minutes. |

Quantitative Statistics

Quantitative data can be used to calculate descriptive statistics – which help us describe our data using frequencies, averages, and percentages – or inferential statistics – which help us draw conclusions and make predictions based on our data.

Descriptive Statistics

Descriptive statistics like the average, median, and mode can tell you about the position of your sample relevant to a characteristic of interest. For example, if you were interested in answering the question, “*How many group parenting sessions did program participants complete?*,” you could calculate an average to learn how many group parenting sessions most people attended.

Calculating averages and frequencies can easily be completed using Excel or other analysis software (such as STATA, SAS, or SPSS). Let's refer to our example of the university pizzeria to learn about how to calculate descriptive statistics such as the average, median, and mode.

Example

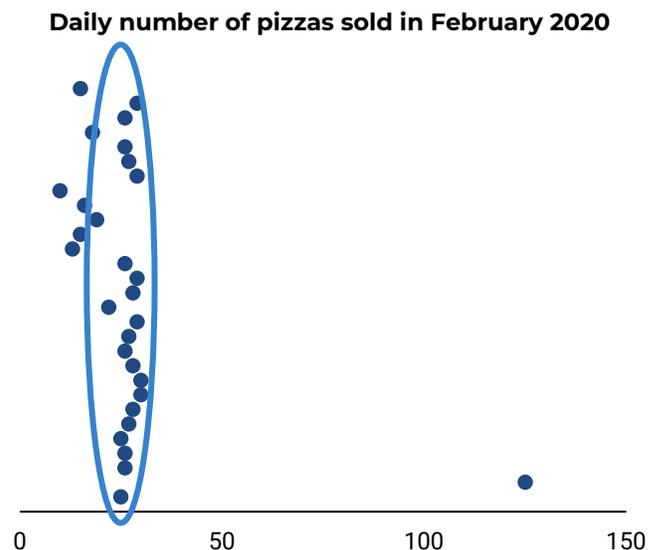
The university pizzeria owners are interested in describing their pizzas sales during the month of February. During February 2020, the pizzeria sold 800 pizzas. The number of pizzas sold each day is shown in the calendar to the right. During February 2020, the Super Bowl was held on Sunday, February 2.

FEBRUARY 2020

| SUN | MON | TUE | WED | THU | FRI | SAT |
|----------|----------|----------|----------|----------|----------|----------|
| | | | | | | 1 25 |
| 2 125 | 3 26 | 4 26 | 5 25 | 6 27 | 7 28 | 8 30 |
| 9 30 | 10 28 | 11 26 | 12 27 | 13 29 | 14 22 | 15 28 |
| 16 29 | 17 26 | 18 13 | 19 15 | 20 19 | 21 16 | 22 10 |
| 23 29 | 24 27 | 25 26 | 26 18 | 27 26 | 28 29 | 29 15 |

www.calendaroptions.com

Average – Think about a scatterplot graph with many data points. An average calculates a single, location where most of the data lie on the graph. In the graph on the right, the average is represented by the blue oval. The average is calculated by dividing the sum of all the data points by the total number of data points.



If the pizzeria owners wanted to calculate the average number of pizzas sold during the month of February, they would divide the sum of all pizzas sold in February by the number of days in February.

800 pizzas sold / 29 days in February (leap year) = ~28 pizzas/day

On average, the pizzeria sold 28 pizzas per day during February 2020.

It's important to know that outliers (extreme values) can have a powerful influence on your average. For example, a day with an abnormally high number of pizzas sales (for example, 125 pizzas sold on Super Bowl Sunday) will make the average higher than it would be if Super Bowl Sunday sales were not included. To get a more accurate picture of your data, it could be helpful to remove extreme values or use a different descriptive statistic, such as the median.

Median – The median identifies the middle value of your data points by placing them in ascending order. Ordering the values, instead of adding them, removes the influence of outliers on your data.

If the pizzeria owners wanted to calculate the median number of pizzas sold during the month of February, they would list the daily number of pizzas sold in ascending order and find the center most point.

Pizzas sold in February
10, 13, 15, 15, 16, 18, 19, 22, 25, 25, 26, 26, 26, 26, 26, 26, 27, 27, 27, 28, 28, 28, 29, 29, 29, 29, 30, 30,
125

The median number of pizzas sold during February 2020 was 26.

If there are two numbers left in the center, you would calculate the average of those two numbers. The result is the median of your data set.

Books read in 2023 (by month)
5, 6, 8, 9, 2, 10, 4, 5, 6, 9, 9, 12

First, place the numbers in ascending order.

2, 4, 5, 5, 6, 6, 8, 9, 9, 9, 10, 12

Next, cross off numbers to identify the center most point.

~~2, 4, 5, 5, 6, 6, 8, 9, 9, 9, 10, 12~~

Now, take the average of the two remaining numbers.

$(6+8)/2 = 7$

The median number of books read in 2023 was 7.

Mode – The mode gives the precise value where most of your data points lie. The mode identifies the number in your data that shows up the most often. (for example, 26 pizzas/day).

If the pizzeria owners wanted to calculate the mode, they would list the daily number of pizzas sold in ascending order and count how many times each value occurs.

Pizzas sold in February

10, 13, 16, 18, 19, 22, and 125 occur once.

15, 25, and 30 occur twice.

26 occurs six times.

27 and 28 occur three times.

29 occurs four times.

The mode is 26.



Activity 6.2

Describe the data: This activity will help you practice how to calculate descriptive statistics such as the average, median, and mode.

Use the following example data set to calculate the average, median, and mode. Then, answer the corresponding questions in the box below.

Number of books distributed each month in 2023 through Dolly Parton's Imagination Library.

January = 200

July = 225

February = 195

August = 250

March = 120

September = 40

April = 180

October = 175

May = 175

November = 180

June = 150

December = 195

1. What was the average number of books distributed through Dolly Parton's Imagination Library in 2023?
2. Were there any extreme values in the data set that may have affected the average? What type of descriptive statistic may be more appropriate to calculate if there are extreme values in the data set?
3. What was the median number of books distributed through Dolly Parton's Imagination Library in 2023?
4. What was the mode for the number of books distributed through Dolly Parton's Imagination Library in 2023?

Inferential Statistics

You can use inferential statistics to assess change and to test differences between groups in your data. Although there are many inferential statistics from which to choose, below are descriptions of two that you may find most useful and easy to calculate. Let's refer again to our university pizzeria to learn about how to calculate the percent change and the t-test.

Example

The university pizzeria owners sold 800 pizzas during February 2020, with an average of 28 pizzas sold per day. During March 2020, the pizzeria sold 1200 pizzas, with an average of 30 pizzas sold per day.

Percent change – Percent change is a useful tool to assess change between two values. It is calculated by finding the difference between the two values, dividing by the original, and multiplying by 100. A simple way to remember how to calculate the percent change is [new – old] divided by the old.

Consider monthly pizza sales at the pizzeria.

If the pizzeria owners wanted to calculate the percent change in pizza sales between February and March 2020, the owners would calculate the difference in sales between March and February, divide by the number of pizzas sold in February, and multiply by 100.

Step 1) 1200 pizzas sold in March - 800 pizzas sold in February = 400

Step 2) 400 pizzas / 800 pizzas sold in February = 0.50

Step 3) Multiply 0.50 by 100 = 50%

The number of pizzas sold in March 2020 increased by 50% compared to the number of pizzas sold in February 2020.

T-test – A t-test is an example of an inferential statistics that can be used to help test the hypothesis that there is a significant difference between two means.

The t-test tests the hypothesis that there is a significant difference in an outcome between two groups within your sample. A paired sample t-test will allow you to compare the average for an outcome within a single group of participants at two points in time (for example, pre and post). A paired sample t-test can be a useful metric to calculate for your outcome evaluation.

To calculate a t-test in Excel, put the values for the first group in Column A. Next, put the values for the second group in Column B. Then use the following syntax in a blank cell: = T.Test(Array1,Array2,tails,type) where Array1 is the range of data in column A and Array2 is the range of data in column B. Tails indicates the number of distribution tails. If you are using a one-tailed distribution, tails = 1, and if you are using a two-tailed distribution, tails = 2. Type indicates whether you are performing a paired samples or independent samples (i.e., comparing data between two different groups of participants) t-test. If you are doing a paired samples t-test, type = 1. If you are doing an independent samples t-test, type =2.



Low cost.

Calculating a frequency or average can be done on pen and paper or it can be done using software such as Excel. There are free or low-cost templates and online tools that can help you calculate descriptive statistics. It may also be cheaper to administer an online survey, or print paper surveys, compared to completing interviews and focus groups.



Useful with large sample sizes.

If you have a group of 50 or more participants, it may be easier to administer an online survey than schedule 50 interviews. There are free or low-cost tools (for example, SurveyMonkey) that can help you administer an online survey and calculate basic descriptive statistics.

Chapter 6: Measurement Matters

Part 3: Analyzing Qualitative Data

Quantitative data is useful to explain what occurred among participants during your project. Qualitative data build upon this information and answer why and how it occurred. There are three commonly used tools to evaluate qualitative data: surveys, interviews, and focus groups. As you prepare to select your qualitative tool, please consider the following principles that are relevant across the three qualitative tools.



Reading level

- Be sure to draft your questions at an appropriate reading level
- For example, aim for 8th grade or lower reading level
- Microsoft Word and other online tools can help you determine the reading level of your questions
- Consider sharing a draft of your questions with a group of individuals that are similar to your priority population for feedback on their understanding of the questions



Incentives

- Incentives should correspond with time investment
- An incentive for a 1-hour interview should be more valuable than an incentive for a 5-minute survey
- Not all participants may need to receive an incentive
- Consider using a drawing with high odds of winning (for example, 1 in 15)
- Drawings can minimize your financial cost while increasing participation
- Use incentives that are valued, not needed
- Incentives should be used to encourage, not coerce participation
- Popular incentives include books, puzzles, and building blocks



Close the loop

- Bring together program staff and participants to co-create action plans or recommendations based on the findings
- Consider hosting a "data party" that brings together key stakeholders to ask questions and brainstorm action steps based on the findings
- Share findings from your data collection back with your participants
- Report what you heard, what you learned, and what you plan to do moving forward
- Consider posting on social media, making a one-page summary, or sending a follow-up email

For additional ideas and guidance on selecting and purchasing incentives, please visit Appendix 2.



Overarching principles for Qualitative Tools

The following section will describe the guiding principles, logistics of implementation, and analytical approaches of surveys, interviews, and focus groups. Your task is to weigh the tradeoffs and select the tool that will best meet your project's goals given your implementation capacity.

Surveys

Guiding Principles

The four guiding principles for surveys can be remembered by picturing a tree. We will begin at the roots, as the roots ground our work and are the core from which all other portions of the tree will grow.



Roots (Principle #1): Ask about topics within your sphere of control.

Your goal is to get the most valuable information in as few questions as possible. Survey questions should address a topic that is actionable, something you can change about your program. Avoid asking questions about topics that are merely interesting; instead ask what is **useful**.

Keep in mind that it is also important to ask questions tied to your forces of change so that you can disaggregate your data. Consider asking questions that collect demographic information such as an individual's age, race/ethnicity, or gender. By disaggregating your data, you can ensure that your results are representative of your sample.

Trunk (Principle #2): Identify 2-3 essential questions.

Before developing survey questions, take time to identify 2-3 **essential questions** you would like to answer. Survey questions should directly address your essential questions in as few questions as possible (for example, 3-5 questions). This will help to minimize the length of your survey and maximize response rates.

For example, an essential question could be, *"What would customers change about the university pizzeria?"*

Survey questions that ask about favorite pizza toppings do not directly address this essential question and should be avoided.



Activity 6.4

Identify essential questions: This activity will help you brainstorm essential questions you would like to answer during your innovation project.

First, identify your audience. Who do you want to gather information from about your project? Be as specific as possible when defining your audience.

Next, think about how you will use the information that you gather from your audience.

Finally, brainstorm 2-3 essential questions that describe what you hope to learn by gathering information from your audience.

Use the space provided to answer the following questions.

1. Who is your audience? Who do you want to gather information from about your project?
2. How will you use the information that you gather from your audience?
3. What do you hope to learn by gathering information from your audience?
4. What are 2-3 essential questions that you can ask your audience to gather the information you hope to learn?



Activity 6.5

Survey says...: This activity will help you practice writing survey questions that can be used to gather information related to your essential questions from your audience.

First, write down the 2-3 essential questions that you identified in Activity 6.4.

Next, brainstorm at least 1 specific question that branches off from each essential question. For example, if your essential question was, “Why do families attend story time at public libraries?,” a specific question may be, “What types of books do families enjoy being read at story time at public libraries?”

Finally, identify what type of response option would be most appropriate to gather this information. For example, for the question that asks about the type of books families enjoy being read, a “select all that apply” with options such as fables, fairytales, picture books, and an option for individuals to write in their own option, may be most appropriate to gather this information.

Use the space provided to answer the following questions.

1. What is your first essential question (identified in Activity 6.4)?
2. What is at least one specific question that you may ask to gather information about your first essential question?
3. What type of response option would be most appropriate to gather this information?
4. What is your second essential question (identified in Activity 6.4)?
5. What is at least one specific question that you may ask to gather information about your second essential question?
6. What type of response option would be most appropriate to gather this information?

Logistics of Survey Implementation

Now that you have developed the content for your survey, it is time to think about how you will build and distribute your survey.



How will you build your survey?

First, determine if there are existing or previously used surveys within your program as these can serve as an easy starting point for your new survey questions (see Appendix A for an example survey template).

If you need to build a survey “from scratch,” most online platforms for surveys (for example, SurveyMonkey, Qualtrics) provide templates to help you build a survey.



Tip!

Design with the end in mind! Plan to spend a large chunk of time identifying how you will send out your survey in terms of the format and messengers.



Which format (paper or electronic) will maximize participant response?

Think about the type and volume of questions on your survey, how often you will collect the survey data (for example, pre and post survey vs. post-only), and the needs and accessibility of your population.

For example, some communities with limited broadband access may find it easier to complete paper-based surveys at their scheduled meetings. Whichever format you choose, the goal is to maximize the number of people who complete the survey.



Who will distribute the survey? Consider using a trusted messenger, perhaps a direct service provider (for example, a parent educator), to distribute the survey to your participants. Ensure that your request to complete the survey is framed as an invitation to participate. The invitation to complete the survey may be more readily received from someone they know as opposed to an invitation from an unknown sender.



How will you distribute the survey?

Select a distribution plan that creates the easiest access for your participants.

For paper-based surveys, consider whether the survey will be mailed to participants or delivered to participants. If the survey is delivered, will it be delivered to the participants’ home, or will it be distributed during a group meeting? If the survey is delivered, make sure there is a plan in place to pick up the completed survey from participants.



Tip!

If you mail participants paper-based surveys, include a pre-paid envelope with your return address labeled to help increase response rates.

For electronic surveys, consider whether you will share it using a QR code or an e-mail/SMS text message link. If you plan to share a QR code via text message, be sure to include the web link to the survey in the text message. If you do not include the web link in the text message with the QR code, an individual will need to use someone else's phone to scan the QR code and complete the survey.



When will you distribute the survey? Be clear with when the survey will open and when the survey will close. Consider sending a reminder message to participants halfway through the survey window. Be mindful of holidays and other events (for example, school closures) that may impact the ability for the survey to be delivered and completed.

For example, avoid sending a survey to teachers during the winter holiday as schools may be closed and teachers may not check their email regularly.

Analytical Approaches

Surveys are unique in that they can collect both qualitative data and quantitative data. However, both the qualitative and quantitative data are analyzed using quantitative methods for analysis. Both descriptive and inferential statistics can be used to analyze survey data. Any of the quantitative tools described in Chapter 6 Part 2 (“Analyzing Quantitative Data”) can be applied to evaluate survey data.

Example

The university pizzeria owners are interested in answering this question, “How often have you eaten pizza from the university campus pizzeria in the last 3 months?” The pizzeria owners sent an online survey to 25 customers between April 1 and April 15, 2023, prior to the launch of their delivery option. The pizzeria owners launched their delivery option on April 30, 2023. The pizzeria owners sent the same online survey to the same set of 25 customers between August 1 and August 15, 2023. All 25 customers completed the survey at both time points. The data from the customers are shown in the table below.

| Customer ID Number | How often have you eaten pizza from the university pizzeria in the last 3 months? Pre (April 1 to April 15, 2023) | How often have you eaten pizza from the university pizzeria in the last 3 months? Post (August 1 to August 15, 2023) |
|--------------------|--|---|
| 1 | 5 | 10 |
| 2 | 15 | 7 |
| 3 | 7 | 10 |
| 4 | 12 | 10 |
| 5 | 11 | 15 |
| 6 | 8 | 12 |
| 7 | 1 | 3 |
| 8 | 20 | 10 |
| 9 | 2 | 6 |
| 10 | 6 | 6 |
| 11 | 8 | 7 |
| 12 | 4 | 9 |
| 13 | 10 | 0 |
| 14 | 12 | 5 |
| 15 | 5 | 7 |
| 16 | 15 | 10 |
| 17 | 2 | 6 |
| 18 | 6 | 8 |
| 19 | 4 | 9 |
| 20 | 3 | 8 |
| 21 | 5 | 5 |
| 22 | 1 | 5 |
| 23 | 1 | 12 |
| 24 | 3 | 5 |
| 25 | 7 | 6 |

Descriptive statistics can be used to find the average, median, or mode response to this question.

If the pizzeria owners wanted to calculate the average number of times customers have eaten pizza from the university campus pizzeria in the last 3 months before the launch of the delivery option, they would divide the sum of the responses collected between April 1 and April 15, 2023, by the number of responses collected.

$$173 / 25 \text{ customers} = \sim 6.9$$

On average, customers ate pizza from the university campus pizzeria 7 times in the past three months prior to the launch of the delivery option.

If the pizzeria owners wanted to compare the percentage of people that ate at the pizzeria at least 10 times before the launch of the delivery option with the percentage of people that ate at the pizzeria at least 10 times after the launch of the delivery option, they would first identify how many individuals ate at the pizzeria at least 10 times before the launch of the delivery option. Then, they would divide this number by the total number of respondents (i.e., 25). Next, the owners would identify how many individuals ate at the pizzeria at least 10 times after the launch of the delivery option. Then, they would divide this number by the total number of respondents (i.e., 25).

Before the launch, 7 individuals ate at the pizzeria at least 10 times before the launch of the delivery option. **Prior to the launch of the delivery option, 28% of respondents ate at the pizzeria at least 10 times.**

After the launch, 8 individuals ate at the pizzeria at least 10 times after the launch of the delivery option. **After the launch of the delivery option, 32% of respondents ate at the pizzeria at least 10 times.**

Inferential statistics (for example, a paired t-test) could assess the difference in the number of times people ate pizza before and after the launch of the pizza delivery option. When testing for statistical significance, a p-value of 0.05 means that there is a 5% chance that the result is due to random chance. A p-value < 0.05 is considered statistically significant and suggests that there is a less than 5% chance that the result is due to random chance. A p-value > 0.05 means that no meaningful difference was observed.

On average, customers ate pizza from Gamecock Pizzeria 6.9 times in the past three months prior to the launch of the delivery option and 7.6 times in the past three months after the launch of the delivery option (p > 0.05). The difference was not statistically significant.

Interviews

An interview is a useful tool to gather in-depth information that cannot be learned from a survey. An interview is a 1-to-1 conversation that usually follows a predetermined set of questions called an interview guide. It is good practice to follow each interview question with additional probing questions to get the information you need. Probing questions are follow-up questions that are intended to clarify responses or gain deeper insight into what was shared. Immediately after the interview, it is important to write notes and reflections in a “field journal”. This will support the creation of themes – ideas present across most interviews – during analysis.



Guiding Principles

Principle #1: Begin with the basics. Begin the interview by building rapport with your participant.

Taking time to form a relationship and establish trust is a necessity. Ask easy questions to gather background information about your participant before progressing to more difficult questions.

Principle #2: Be mindful of time. The goal is to ask 10 to 12 well-phrased questions so that the interview lasts between 30 and 60 minutes.

Prior to the interview, identify your 2 to 3 essential questions that you hope to answer, and ensure that your interview questions will help you gather the information you need.

Principle #3: Ask open-ended questions. Rather than asking questions that prompt for a yes or no response (for example, "Did you ever experience...?"), rephrase the question so that your participants can describe and elaborate on their experience (for example, "Tell me about a time when...").

Open-ended questions will allow the participant to provide more rich and robust qualitative data.



Activity 6.6

Leave it open: This activity will help you practice writing open-ended questions that can be used to gather information during an interview.

Using the space provided, rewrite the following close-ended questions as an open-ended question.

1. Did you enjoy your experience at the parenting group meeting last week?
2. Did your child participate in the art activity during the parenting group meeting last week?

1. How would you rewrite question 1 ("Did you enjoy your experience at the parenting group meeting last week?") as an open-ended question?

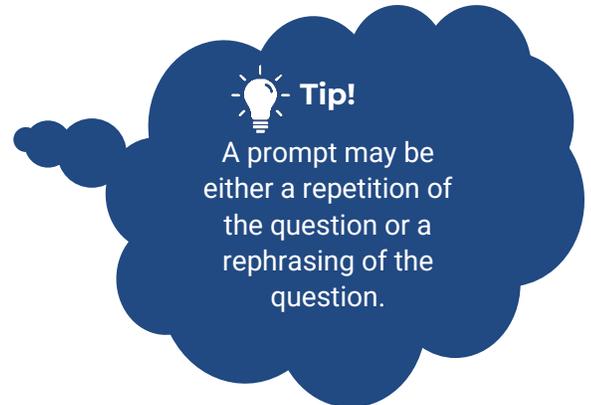
2. How would you rewrite question 2 ("Did your child participate in the art activity during the parenting group meeting last week?") as an open-ended question?

Principle #4: Meet participants where they are. Reduce the burden on participants when scheduling an interview. Ask participants whether doing an in person or virtual interview will be practical with their schedule. For an in-person interview, ask participants whether meeting the individual where they work or live will be more comfortable and feasible for their participation. For a virtual interview, consider using Zoom, Microsoft Teams, or a phone call to complete the interview.

Principle #5: Summarize what you heard. Occasionally check for understanding by offering a summary of what the participant stated.

Offering a summary of what you heard can also help build empathy by showing the participant that they have been heard and understood.

Principle #6: Use prompts. If a participant struggles to respond to a question, try to prompt with 1 or 2 examples to help them think of their answer.



Principle #7: Pilot test your interview guide. Practice your interview with someone of a similar background as your participants.

Be prepared to make changes to your interview guide before, during and after the interview. Pilot testing your interview guide with someone else can help clarify your questions and reduce the need for prompts during the interview.

Logistics of Interview Implementation

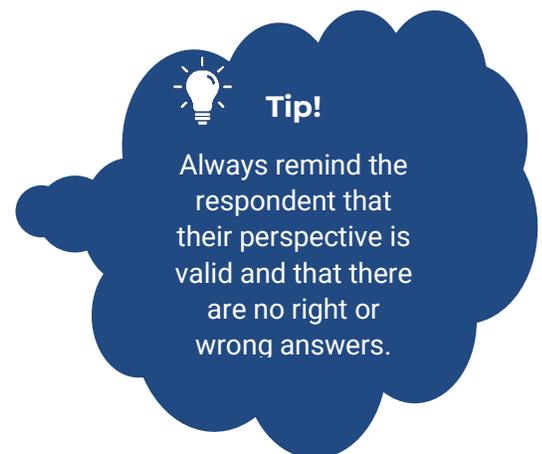
Before you conduct your interview, it is important to plan out what you will ask, who you will ask, and how you will complete the interview. The following considerations apply to both in-person and virtual interviews.

Develop an interview guide. An interview guide is the set of questions you will ask the respondent during the interview.

Begin the interview guide with a brief introduction that expresses your gratitude for the respondent's time, conveys the purpose of the interview, and shares how the findings will be used.

List each of your primary questions and any follow-up questions that you intend to ask.

Conclude by thanking the participant for their time, discussing details about the incentives, and reminding them how their data will be used.



Identify and invite your participant(s). Generally, purposeful sampling and random sampling are the most common techniques to help you choose who to invite to your interview. The goal in sampling is to obtain a representative group of people who will provide insight to directly address your essential questions.

Purposeful sampling allows you to intentionally select participants who hold specific characteristics that may lead to valuable perspectives in the interview.

For example, the pizzeria owners may want to purposefully sample two groups of customers: those who frequently order from the pizzeria AND those who only ordered once from the pizzeria. This could create a powerful comparison group to explore differences in perspectives about the pizzeria and how it could be improved.

Random sampling allows you to gather a diversity of perspectives that may be more representative of the population.

For example, the pizzeria owners could create a random sample by inviting every 5th person that orders a pizza to participate in the interview.

When you are selecting individuals to participate in your interviews, be sure to review the forces of change that you think are important to your project. Be sure to invite participants that are representative of your community and the population you aim to serve during your innovation project.

When scheduling and conducting your interviews, it is important to consider the concept of saturation. Saturation is the point at which you begin to hear the same themes repeated consistently among your participants. Once you have reached the point of saturation, you can stop conducting interviews.



Tip!

Consider selecting participants based on a characteristic (for example, age, proximity to program, etc.) that may offer meaningful insight to your project.



Activity 6.7

Select your sample: This activity will help you identify potential participants that can be invited to participate in an interview to gather information related to your innovation program.

First, review the essential questions you identified in Activity 6.4. Next, use the space provided to answer the following questions.

1. Write down 1 essential question you identified in Activity 6.4.

2. Describe the characteristics of your potential interview participants in as much detail as possible.

3. Would you use a purposeful or random sample to select participants for your interview? Why?
 - a. If you selected a purposeful sample, describe how you would recruit individuals to participate in your interview. For example, how would you contact individuals to participate in the interview?

 - b. If you selected a random sample, describe how you would randomly select individuals to participate in your interview. For example, would you use a random name generator to identify participants or select every third person who you engage with at a community outreach event?



Consider recording and transcribing your interview. Recording an interview is an optional, but helpful strategy to use when collecting and analyzing qualitative data. It is crucial to obtain consent from participants prior to recording your interview.

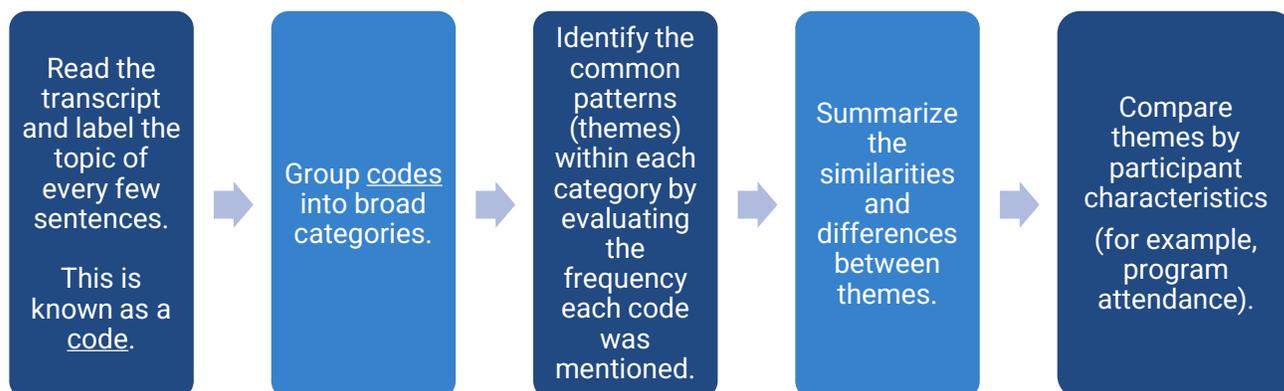
If you receive consent to record the interview, you can purchase a portable audio recorder or use the recording app on your phone to record the interview. During the interview, place the recorder midway between yourself and the respondent and remove any objects that could cause background noise.

If you record the interview, the next step is to transcribe it (i.e., make a text document of the interview for analysis). Transcription service platforms such as Rev.com, otter.ai, or Scribie can help with this process.

If you do not receive consent to record the interview, use a notepad to take “field notes” during your interview. Field notes are a way to record your observations and reflect on responses you found important.

Analytical Approaches

The goal of analysis for interviews is to identify themes (common patterns) within participant responses. Shared ideas across interviews indicate an important answer to your essential questions. To begin qualitative analysis, 2-3 individuals will:



Focus Groups

Like interviews, focus groups allow you to gather information beyond what could be learned using a survey. Focus groups offer unique insight as participants share their individual perspectives in relation to the group’s perspective. Focus groups are ideally conducted among a small group of participants and led by a trained facilitator. The guiding principles for interviews apply to focus groups. See below for additional principles that are specific to focus groups.

Tip!
Limiting the size of your focus group to 5 to 8 individuals can maximize the quality of information shared.

Guiding Principles

Principle #1: Keep the focus group small. The goal of a focus group is to encourage participants to respond not only to the question prompts, but to each other.

A larger group will share more perspectives and can make it challenging to reach consensus around an idea.

Principle #2: Accommodate all participants. Accommodations should be in place to encourage participants to share their perspective.

One way to accommodate introverted individuals is to share the interview guide with participants 1 or 2 days before the focus group. This will provide participants with an opportunity to form their ideas in advance and prepare to share their perspective.

Principle #3: Own the space. Focus groups, like any other group, are susceptible to power dynamics. Some individuals, often those with the highest pay or tenure, may dominate the conversation and unintentionally suppress the expression of other ideas. To counteract this, the facilitator must set the expectation for inclusive communication.

Remind participants that all perspectives are valued and that they will listen and respectfully respond to each other.

Be intentional with seating to foster listening. Sit everyone in a circle to remove the option for one individual to sit at the head of the table. Consider placing individuals that may dominate the conversation close to the focus group leader. Another option is to spread out individuals that may dominate the conversation rather than placing them near one another.

Principle #4: All voices should be heard. Do not let one person dominate the conversation. Invite others to share their perspective during the focus group.

Logistics to Focus Group Implementation

The same considerations around logistics for interviews also apply for focus groups. See below for additional logistical considerations for focus groups.



Identify a notetaker. A notetaker supports the facilitator by capturing details about the focus group such as the names of the speaker, the number of attendees, the start and end time, the setting, and any technical challenges experienced during the focus group.

A notetaker can also record observations such as moments of consensus, non-verbal communication, and examples of power dynamics that may influence the analyses.



Select a quiet, neutral location for the focus group. Focus groups should be held in a quiet, neutral space to minimize the chance for interruption. If you are hosting a virtual focus group, ask participants to remain “on mute” while other individuals are talking.



Assign participants a speaker number. Place numbered name tags at each participant's seat (for example, Speaker #1: Joe Brown). At the start of the recording, be sure to ask each participant to state their name and their speaker number.

This is crucial to be able to identify the speaker in your notes. If you are recording a focus group, be sure the recorder is stationed in the center of the seating arrangement. Test the quality of the recording before the focus group begins.



Hold several focus groups. A single focus group will not provide the information you need. It is important to conduct several focus groups (at least three) to compare findings across groups during analysis.

Considerations around purposive and random sampling from the interviews section also apply when selecting participants for focus groups.

If you are hosting a virtual focus group, confirm that participants have the registration link for the focus group. Also consider sending a reminder email or text message to participants at least 24 hours before the focus group session.

Analytical Approaches

For focus groups, the level of analysis is at the group-level, not the individual. During analysis for interviews, themes are created by finding agreement between individuals. Focus groups create themes by finding agreement across the focus groups that were conducted. The first three steps for interview analysis (i.e., read the transcript and identify codes, group codes into categories, identify themes within each category) apply to focus groups. The final step is to compare themes across the different focus groups (different samples of individuals) you conducted.

Focus Groups vs. Interviews

Focus groups and interviews are techniques that can be used to gather rich qualitative data from individuals. The choice of hosting one-on-one interviews or focus groups will depend on the goals of your innovation project, the timeline for data collection, and your capacity to collect the information.

In certain scenarios, one-on-one interviews may be more feasible and appropriate for collecting data. If you are interested in gathering the unique perspective of an individual, an interview may be the better tool. Interviews allow you to deepen your understanding behind an individual's thoughts, behaviors, and actions. Data from an interview can be viewed as a case study that highlights an individual's unique experience and perception of your innovation project.

An advantage of holding an interview is that the interviewee's perspectives are less likely to be biased or influenced by external opinions. Since the only attendees of the interview are the interviewer and the interviewee, the interviewee's responses are not subject to influence by other participants.

Another advantage of hosting one-on-one interviews is that some individuals feel more safe participating in a one-on-one conversation. For some individuals, speaking in front of a crowd or a group of strangers can become overwhelming.

A tradeoff to hosting interviews is that they can demand a significant investment of time and resources. Hosting a one-on-one interview takes at least 30-60 minutes to complete. To reach a point of saturation, it may take your project team a few weeks or a few months to recruit a sufficient number of participants and complete the interviews.

Focus groups may be a more feasible and practical strategy to collect a range of perspectives on a topic in one session. Focus groups also allow individuals to mold their thoughts and opinions around a given topic based on the responses that are shared by other participants. During a focus group, you can look for patterns of consistency and identify themes during the discussion.

A tradeoff to hosting focus groups is that some people will talk a lot while some people will talk infrequently. If you host a focus group, pay attention to how often people respond to a question and how long they spend time talking. If one person begins to dominate the conversation,

The decision to use interviews versus focus groups in your innovation project does not have to be an either-or decision. Both interviews and focus groups can be used in your innovation project to gather robust contextual information about the diverse experiences and perceptions of individuals in your community. The choice of when to use an interview versus focus group will depend on the amount of information you wish to gather, the type of information you wish to learn, and the resources you have to collect the information.

Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 7: Formative Evaluation



As you will recall in Chapter 5 (“Introduction to Evaluation”), evaluation is an ongoing process, and the type of evaluation design you select will depend on your innovation pathway, where you are in your project’s implementation cycle, and what your team wants to learn from the evaluation.

A formative evaluation determines if the program activities are achievable and acceptable. It pilot tests the program on a small sample of individuals over a short period of time (for example, 6-12 weeks) before moving to full implementation with a larger group of individuals. Because of these limitations, a formative evaluation does **NOT** estimate a program’s impact on targets or outcomes. Instead, it answers the core question, “Can the program be implemented in a way that is consistent with participant expectations?” To answer this question, **quantitative** and **qualitative** data will be used to address the five elements of a formative evaluation shown in the Table 7.1. The “Guiding Questions” introduced in Table 7.1 are examples of broad questions that can help you report on the five elements of your formative evaluation (i.e., reach, quality, completeness, satisfaction, and context).

As mentioned in Chapter 5 (“Introduction to Evaluation”), evaluation questions should be specific to where you are in your project’s implementation cycle and what your team hopes to learn from the evaluation. The “Guiding Questions” in Table 7.1 can be used as a framework to help you develop specific questions for your formative evaluation.

Example of a Guiding Question

Rather than asking “Did we successfully recruit the intended sample, in terms of size and personal characteristics (for example, age, race, income, region, etc.), for our program?,” a more specific question to measure reach may ask, “How many families that have children under the age of 5 did we enroll into our home visiting program?”

| Table 7.1 – Five Elements of Formative Evaluation | | | | |
|---|---------------|--|---|--|
| Component | Quant or Qual | Guiding Questions | Quantitative or Qualitative Tools | Example |
| Reach | Quant | How many people did you serve? Did you serve the group of participants (for example, in terms of race, age, gender, or other characteristics) that you intended to serve? | Attendance records. | Quant: The group reading program sought to enroll 10 families living in a rural apartment complex to participate in the 4-week program. After holding two information events at the apartment complex, the group reading program enrolled 8 families (80% of their goal) to participate in the 4-week program. |
| Quality | Quant + Qual | To what degree was the program delivered as planned? To what degree were the strategies needed to complete the program available? | Observation. | Quant: Most parents (90%) read to their child for 10 minutes each night as instructed by their group reading instructor. Qual: Among parents that did not read for 10 minutes each night, individuals said they were distracted from reading due to the sound of construction workers outside of their apartment complex. |
| Completeness | Quant | To what degree did the program participants complete the intended number of activities and assessments? | Attendance records. | Quant: The group reading program held 8 group sessions during the 4-week program. On average, families attended 6 of the 8 group sessions. |
| Satisfaction | Quant + Qual | How did participants feel about the program? What parts of the program did they like best? What parts of the program did they like least? | Surveys, interviews, or focus groups. | Quant: Most parents (95%) would highly recommend the group reading program to other families in their apartment complex. Qual: “Not only did this program help teach my son how to recognize words, it also helped me learn how to read to him in a way that helps us bond.” |
| Context | Quant + Qual | What about where a person lives, works, learns, and plays or any family characteristics could influence the outcomes? | Demographic information, surveys, interviews, observations, and focus groups. | Quant: Families with three or more children had lower attendance in the group reading program than families with less than two children. Qual: Families with three or more children reported having to “juggle multiple conflicting schedules” as a barrier to group meeting attendance. |

**Adapted from the book "Implementation Monitoring and Process Evaluation" by Ruth P. Saunders of University of South Carolina Arnold School of Public Health¹*

Evaluation Scenario

A university carry-out pizzeria adopted a delivery option to increase sales. On the first customer experience survey, customers described transportation barriers as the primary reason for infrequent purchases. Based on this data, the store owners decided to adapt their service option and offer delivery. Their long-term goal is to reach customers with transportation barriers and transform them into a reliable clientele.



Activity 7.1

Find the goal: The purpose of this activity is to help you practice identifying goals in a written summary of an innovation program.

Review the evaluation scenario provided below. Highlight or underline the goals established by the pizzeria owners.

The owners of the university pizzeria decided to adapt their service options and offer delivery. Their new strategy was to create an online platform for customers to order delivery. To create the online platform, the pizzeria owners set a goal to develop a memorandum of understanding (MOU) with UberEats and DoorDash for campus delivery. The pizzeria owners also set a goal to recruit 3 delivery drivers as new employees. The pizzeria owners also set a goal that 75% of pizzas sold during the first month of the online platform will select delivery as their dining option.



Activity 7.2

Develop guiding questions and data collection plans: The goal of this activity is to help you practice writing guiding questions that can be answered during your formative evaluation. This activity will also help you develop a plan for how to collect data to help answer your guiding questions.

Use the space provided in Table 7.2 to complete this activity. First, write at least one guiding question you would use to measure each of the five elements of a formative evaluation (i.e., reach, quality, completeness, satisfaction, and context).

Next, identify whether your guiding question will use quantitative and/or qualitative methods to collect the data.

Then, describe an example of a quantitative and/or qualitative tool from Chapter 6 (“Measurement Matters”) that you can use to collect the data.

Finally, include an example of a piece of quantitative and/or qualitative data that would provide evidence for this measure. An example, highlighted in gray, is provided for each element.

| Table 7.2 – Developing Guiding Questions and Data Collection Plans for a Formative Evaluation | | | | | |
|---|--------------|---|---|---|--|
| Whose turn is it to practice? | Component | What guiding question(s) would you ask? | Would you collect quantitative and/or qualitative data? | What quantitative and/or qualitative tool(s) would you use to measure this? | Example of piece of quantitative and/or qualitative data. |
| Example | Reach | How many pizza delivery drivers were recruited? | Quantitative | Descriptive statistics: count of the number of pizza delivery drivers recruited | Three delivery drivers were recruited. The owners' goal was to recruit 3 delivery drivers. 3 out of 3 (100%) delivery drivers were recruited. |
| Your turn! | Reach | | | | |



Activity 7.2 continued

| | | | | | |
|-------------------|---------------------|--|--------------|---|--|
| Example | Quality | Was an MOU established between UberEats and the pizzeria? Between DoorDash and the pizzeria? | Qualitative | Administrative data (for example, review of signed contracts) | Two MOUs were signed prior to the launch of the online platform – one between the pizzeria and UberEats and one between the pizzeria and DoorDash. |
| Your turn! | Quality | | | | |
| Example | Completeness | What percentage of pizzas were sold using the online platform? | Quantitative | Descriptive statistics: count of the number of pizzas sold online, percentage of total pizzas sold during the month | There were 120 pizzas sold during the first month of the online platform. Of the 120 pizzas sold, 65 pizzas were sold online. 65 sold online / 120 sold overall = 54% 54% of pizzas sold during the first month of the online platform were sold online. |
| Your turn! | Completeness | | | | |



Activity 7.2 continued

| | | | | | |
|-------------------|---------------------|--|--------------|---|--|
| Example | Satisfaction | What percentage of customers that used the online platform for their purchase found the online platform easy to use? | Quantitative | A brief follow-up survey will appear on the end of the online order screen for customers to complete Descriptive statistics: percentage of customers that found the online platform easy to use | Of the 65 pizzas that were purchased online, 65 customers completed the brief survey. Of the 65 customers who completed the survey, 45 customers said the online platform was easy to use. $45 / 65 = 69\%$ 69% of customers who used the online platform said it was easy to use. |
| Your turn! | Satisfaction | | | | |
| Example | Context | What factors contributed to a person's decision to select delivery as their dining option? | Qualitative | Delivery drivers were instructed to ask their customers "What made you choose delivery as your pizza option today?" when the pizza was delivered. Responses were written down and summarized by the pizza owners. | Of the 120 pizzas sold during the first month of the online platform, 60 customers (50%) selected delivery as their dining option. The most common reasons for selecting delivery were 1) lack of transportation for the carry-out option and 2) delivery was "easier than having to drive there and back." |
| Your turn! | Context | | | | |

Now that you have practiced writing guiding questions, identifying methods to collect data, and describing ways to report the data, you are ready to begin applying these skills to your innovation project. Use the notes section at the end of this chapter to record data from your formative evaluation.

Next, you will learn how to assess how your project is being implemented during a process evaluation. Flip to the page that has the whisk in the top right-hand corner of the page.

Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 8: Process Evaluation



As a reminder, evaluation is an ongoing process. The type of evaluation design that you select will depend on your innovation pathway, where you are in your project’s implementation cycle, and what your team wants to learn from the evaluation.

If you completed a formative evaluation and determined that your program strategies were achievable and acceptable, then you can shift your focus to the project’s impact on targets. As a reminder, **targets** are the skills, behaviors, beliefs, attitudes, and knowledge directly targeted by the program’s strategies. A **key question** to ask yourself during a target evaluation is “Are my program’s targets moving in the expected direction?” For information on how to set targets, see Chapter 4 (“Theory of Change”).



Activity 8.1

Aim for your target: This activity will help you describe the targets and goals for each target in your project.

Using your Theory of Change (found in Chapter 4), use the space provided in Table 8.1 to identify your project’s targets and who will be impacted by each target. Then, set a numeric goal for each target.

An example, highlighted in gray, is provided in Table 8.1.

| Table 8.1 – Target Identification and Goal-Setting | | | |
|--|--|--------------------------------------|---|
| Whose turn is it to practice? | What is my project’s target? | Who will be impacted by this target? | What is the numeric goal I expect to meet with this target? |
| Example | Increase customer knowledge of the delivery option by including an informational flyer with 100% of orders during the first 30 days of implementation. | Customers | 100% of customers will receive an informational flyer. |
| Your turn! | | | |
| Example | 95% of delivery orders are delivered within 45 minutes of the customer order each month. | Staff | 95% of delivery orders are delivered within 45 minutes. |
| Your turn! | | | |
| Your turn! | | | |

Identifying Indicators of Success

To determine whether we are hitting the mark with our targets, we need to identify indicators, the specific, measurable characteristics that show progress has been made. We know that our indicators are meaningful and measurable if they are S.M.A.R.T. (i.e., specific, measurable, achievable, relevant, and time-bound). We monitor our targets and evaluate our indicators to identify what has changed and how these changes may have happened. The identification of indicators helps guide our decisions on how we collect, analyze, and interpret our data.

Example

Evaluation Question: How has customer knowledge of the delivery option changed during the first 30 days of implementation of the delivery option?

Target: 100% of orders will receive an informational flyer during the first 30 days of implementation of the delivery option.

Indicator: The percentage of customers that indicate the “informational flyer” was how they first heard of the delivery option. The indicator will be measured during the first 30 days of implementation of the delivery option.

On the “checkout” screen, customers will complete a question that asks, “*How did you first hear about the delivery option?*” with answer choices that include informational flyer from pizzeria, social media post, word of mouth, I did not know there was a delivery option, or other.

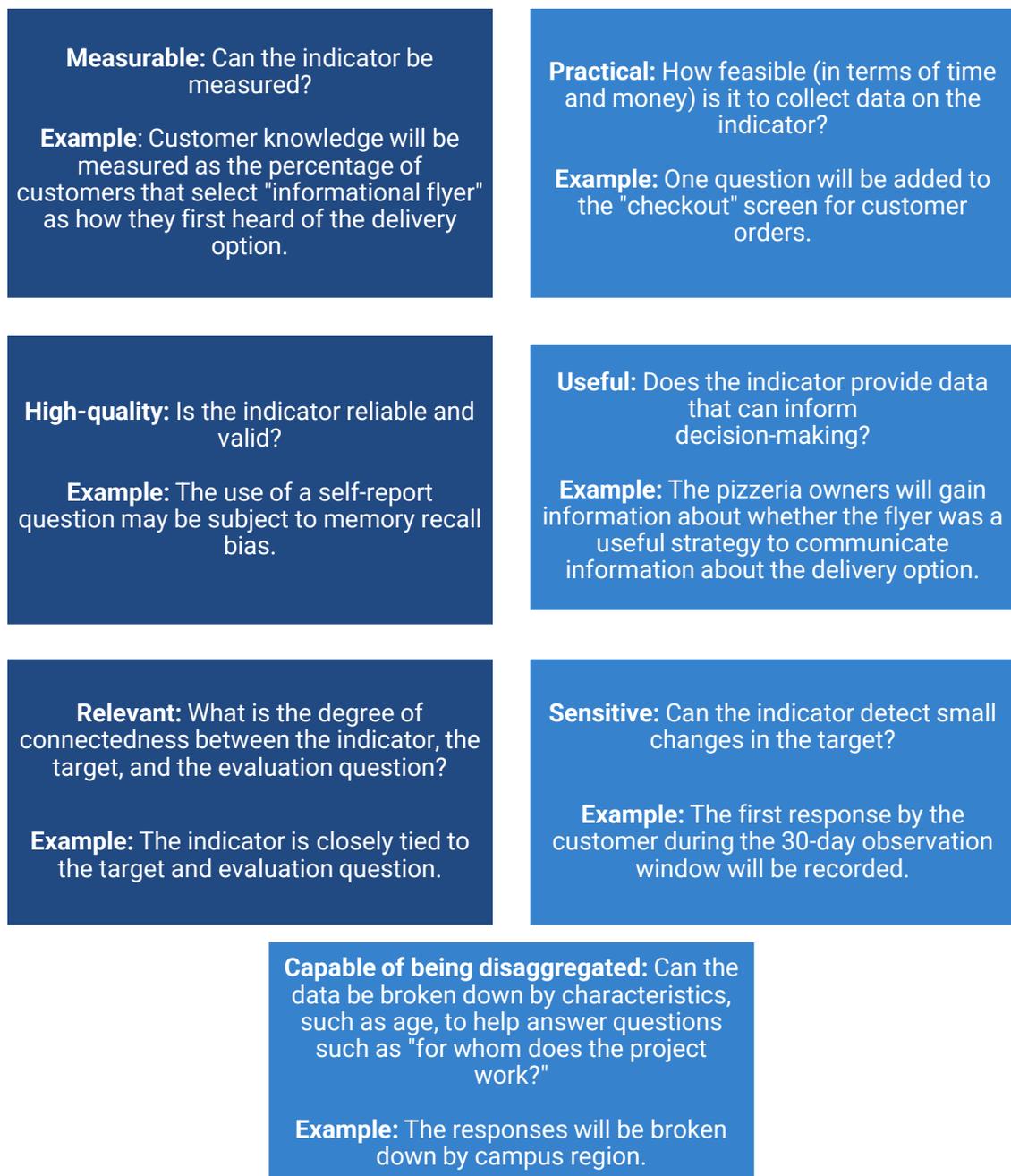
Indicator Criteria

Indicators should be clearly tied to your program’s targets and to your project’s evaluation questions. When selecting indicators, it is important to weigh the evidence that supports the selection of this indicator as useful and reliable. Consider the following criteria to guide your selection of an indicator.

A good indicator should meet multiple criteria found in Figure 8.1. These criteria were adapted from the Center for Disease Control and Prevention’s “Criteria for Selection of High-Performing Indicators” checklist.¹



Figure 8.1 – Criteria of High-Quality Indicators



Below are additional reflection questions that can be used to guide your selection of indicators:

- 1) Does the indicator help me gather information to assess a change in my program's targets?
- 2) Does the indicator help me gather information to answer my evaluation questions?
- 3) Do my stakeholders agree that the indicator is a useful measure?
- 4) Given the resources I have available, is it feasible to use this indicator? Is the information that I can gather with this indicator worth the effort it will take to collect it?
- 5) Is my program an adaptation of an evidence-based or evidence-informed program?
 - a. If yes, what indicators are suggested and/or required by the model guidelines?
 - b. If no, what indicators have been used in past research or program evaluations to address targets that are similar to my program?



Activity 8.2

Map it out: This activity will help you identify the connection between your project's targets and potential indicators.

First, write your project's targets in the boxes below. Put one target in each box.

Next, identify at least one possible indicator that can be used to measure each of the targets you have identified. Write the indicator in one of the circles below.

Then, draw an arrow from the indicator to the target it can be used to measure. Each target should have an arrow to at least one indicator. However, a target can be connected to multiple indicators.

| Targets | Indicators | |
|-----------|--------------|--------------|
| Target 1: | Indicator 1: | Indicator 2: |
| Target 2: | Indicator 3: | Indicator 4: |
| Target 3: | Indicator 5: | Indicator 6: |



Activity 8.3

Rate the indicators: This activity will help you review and apply the criteria for high-quality indicators to the potential targets and indicators you have selected for your project.

First, write each indicator you have identified in Table 8.2 – Checklist Table for Indicators for Activity 8.3. Use the checklist table to identify which of the seven criteria for high-quality indicators has been satisfied for each indicator that you have written in the table.

Next, review your checklist. Based on your review of the checklist, select which indicator(s) will be used to measure each target for your project. As a general rule, select an indicator that meets at least 3 of the criteria.

Finally, place a star by each indicator that you will use to measure the targets for your project.

Table 8.2 – Checklist Table for Indicators for Activity 8.3

| What is the target? | What is the indicator? | What criteria does the indicator meet? (Place a checkmark in all that apply) | | | | | | | Place a "star" in this column to identify which indicator you have selected to measure each target in your project. |
|---|--|--|-----------|--------------|--------|----------|-----------|--------------------------------|---|
| | | Measurable | Practical | High-quality | Useful | Relevant | Sensitive | Capable of being disaggregated | |
| Example: 100% of orders will receive an informational flyer during the first 30 days of implementation of the delivery option. | Example: The percentage of customers that indicate the "informational flyer" was how they first heard of the delivery option. | ✓ | ✓ | | ✓ | ✓ | | ✓ | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Tools Needed to Conduct a Process Evaluation

Once you have identified your targets and indicators (i.e., **what** needs to be collected), you can decide which method(s) (i.e., **how**) can be used to collect this information. See Chapter 6 (“Measurement Matters”) for a variety of quantitative and qualitative tools to collect and report data.

To determine whether there has been a change in your program’s targets, your team will need to **collect data at two points in time** – before and during the program. It is good practice to establish the dates of data collection prior to the beginning of program implementation.

For each target and indicator you have identified, your team will need to answer the following questions:

- 1) What is the source of the data? Does a validated tool exist?
- 2) How will I collect the data?
- 3) Who will I collect the data from?
- 4) How often will I collect the data?
- 5) Where will I store the data?
- 6) How will the data be used to answer the evaluation question?
- 7) Is the data collection acceptable to participants? Will participants see data collection as a burden?



Activity 8.4

Develop a data collection plan: The following activity will help you think through how you will collect data to measure the indicators you have selected for each of your project’s targets.

To complete this activity, identify the indicators that you noted with a “star” in Table 8.2. Write one indicator in each row of Table 8.3. Then, answer the seven questions for each indicator in the table below.

An example, highlighted in gray, is provided in Table 8.3.

Table 8.3 – Data Collection Plan for Process Evaluation

| What is the indicator? | What is the source of the data? Does a validated tool exist? | How will I collect the data? | Who will I collect the data from? | How often will I collect the data? | Where will I store the data? | How will the data be used to answer the evaluation question? | Will participants see data collection as a burden? |
|--|---|---------------------------------------|-----------------------------------|---|--|--|--|
| Example: The percentage of customers that indicate the “informational flyer” was how they first heard of the delivery option. | Customer feedback on “checkout” screen No | One question on the “checkout” screen | Customers who purchase a pizza | One time from each customer during the first 30 days of implementation of the delivery option | The data will be stored in our customer database | To identify the percentage of customers who heard about the delivery option from the informational flyer | No |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Reporting Data from a Process Evaluation

Example

Target: 95% of delivered pizzas are accurate to the customer order each month.

Indicator: Percentage of customers who indicate that the order was delivered correctly on the post-order satisfaction survey.

Dataset: Percent of accurate pizza deliveries

Month 1: 40%, Month 2: 63%, Month 3: 79%, Month 4: 84%, Month 5: 89%

Quantitative tool: Percent change between Month 1 and Month 5.

Step 1) 0.89 [Month 5 % of accurate pizzas delivered] – 0.40 [Month 1 % of accurate pizzas delivered] = 0.49

Step 2) $0.49 / 0.40$ [Month 1 % of accurate pizzas delivered] = 1.225

Step 3) Multiply 1.225 by 100 = 122.5%

This data shows that between the first and fifth month there was a 122% increase (more than double) in the number of pizzas delivered accurately.

However, the target is that 95% of all delivery orders will be accurate. Looking at our data, we see that the 95% threshold was reached 0 out of 5 months. The accuracy of pizza orders has improved over time, but it does not yet reach the target goal.

Reflection Question: Based on the data, do you think the target goal would be reached in the next month? How successful was the innovation in achieving its target goal? Write your answer in the space below.



Activity 8.5

Report quantitative data: In this activity, you will learn how to apply the quantitative tools you learned in Chapter 6 Part 2 to evaluate changes in your program's targets.

First, select one, quantitative target and indicator from the list you created above in Table 8.3. Write these down in Table 8.4.

Next, create a dataset of 2 datapoints for the indicator. Write these down in Table 8.4.

Third, use a quantitative tool from Chapter 6 Part 2 ("Analyzing Quantitative Data") and your 5-point dataset to determine if there is a change in your target.

Finally, answer the corresponding reflection questions.

Table 8.4 – Practice Data File for Targets and Indicators

| What is my target? | What is my indicator? | What are my two data points? | What quantitative tool will I use? |
|--------------------|-----------------------|------------------------------|------------------------------------|
| | | | |

Use the space below to calculate the descriptive statistic (for example, average, mode, median) or inferential statistic (for example, percent change or t-test) that you selected in the table above.



Activity 8.5 continued

Reflection Question: Based on the data, do you think the target goal would be reached in the next month? How successful was the innovation project in achieving its target goal? Write your answer in the space below.

If your targets are moving in the expected direction, you may be ready to move along the spectrum of evaluation and complete an outcome evaluation.

If your targets are not moving in the right direction, you may need to review data from your formative and process evaluation to uncover potential factors that may have impacted your targets. Review program participation data to uncover whether there were challenges with recruitment and retention of participants. Review participation satisfaction data to determine whether there were components of the program that participants would recommend improving. Review implementation data to understand if the program was being delivered as intended. Also, review your forces of change and disaggregate your data to discover whether there were differences in the targets by a specific characteristic of interest (for example, participant's age or race/ethnicity, or the format (in-person or virtual) of the session).

Now that you have practiced identifying targets and indicators and reporting data, you are ready to begin applying these skills to your project. Use the notes section at the end of this chapter to record data from your process evaluation.

Next, you will learn how to assess what you learned from your project during an outcome evaluation. Flip to the page that has the flower in the top right-hand corner of the page.

Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 9: Outcome Evaluation



If you have completed a formative evaluation (*determined your program strategies are achievable and acceptable*) and a process evaluation (*found evidence that your targets are moving in the right direction*), the next step is to determine your program's impact on outcomes. An outcome evaluation answers the question "Is there evidence to support our full Theory of Change?" In an outcome evaluation, you will simultaneously collect data on your strategies, targets, outcomes, and forces of change. Gathering information about your strategies and targets in this stage will help you understand what factors contributed to a change in the outcomes. If there was no change, data related to your program's strategies and targets may reveal where road bumps occurred in your program.



Activity 9.1

Identify your outcomes: The goal of this activity is to help you clearly define the outcomes of your innovation project.

Using your Theory of Change (found in Chapter 4), use the space provided in Table 9.1 to answer the following questions.

| Table 9.1 – Outcome Identification Table | | | |
|---|--|------------|------------|
| | Outcome (Example) | Outcome #1 | Outcome #2 |
| What is the outcome? | 400 pizzas will be sold each month | | |
| Is this a short- or long-term outcome? | Short-term outcome | | |
| How did I incorporate community voice in the selection of this outcome? | Customers were sent a five-question survey to gather information on eating habits and cost preferences. | | |
| Who will be impacted by this outcome? | Staff will be impacted – more pizzas sold means more profit and increased demand. A higher profit and customer demand means more staff can be hired. | | |
| How do I expect this outcome to change? | I expect the number of pizzas sold to increase gradually over the first three months after the launch of the delivery option. | | |

When completing an outcome evaluation, you are simultaneously asking:

- 1) Are our strategies still feasible and acceptable? (Formative Evaluation)
- 2) Are our targets changing in the anticipated direction? (Process Evaluation)
- 3) Are our outcomes changing in the anticipated direction? (Outcome Evaluation)
- 4) How do our forces of change explain differences in outcomes among different groups? (Outcome Evaluation)

An outcome evaluation looks at the big picture, the sum of your entire Theory of Change. It will provide the information you need to decide how the program can be improved and implemented in the future.

Designing Outcome Evaluation Questions

Throughout the toolkit, you learned that it is important to ask specific questions. Your outcome evaluation questions will guide the measurement of your outcomes and the outcome evaluation design you select. Your outcome evaluation questions should be clear and specific so that you can answer the following questions:

1. Who will I collect data from?
2. How often will I collect this data?
3. What tools do I need to collect the data?

Your outcome evaluation questions should be aligned with the program strategies and targets identified in your Theory of Change (see Chapter 4 “Theory of Change”). As a reminder, strategies are the actions the program will take to achieve desired changes and targets are the skills, behaviors, beliefs, attitudes, and knowledge the program aims to change.

An outcome evaluation can also help you answer questions such as, “For whom does the program work?”, “For whom does the program not work?”, and “In what contexts does the program work?”. By asking these questions, you will work to uncover or reinforce the impact of the forces of change for your program. Forces of change are the person- or context-based factors that may affect which participants benefit more or less from a program.



Tip!

Questions related to your forces of change may not have been answered during your process or target evaluation, but this knowledge helps to understand which factors contribute to differences in outcomes between groups of individuals.

With this knowledge, you can begin to identify potential changes in your strategies or targets that may produce better outcomes for a specific group of people.

To write an outcome evaluation question, you can use the following template as a starting point.

Template

Did [program, program component, model] have a [change, effect, impact] for [individuals, groups, or organizations] by [a specific magnitude or amount]?

Example

Did the **delivery option** create an **increase in sales** (revenue) for **customers** by **10%** compared to sales in the month prior to the delivery launch?



Activity 9.2

Develop a data collection plan: The following activity will help you think through how you will collect data to measure the outcomes of your innovation project.

To complete this activity, refer to your answers from Activity 9.1 and your Theory of Change (found in Chapter 4). Use the space provided in Table 9.2 to complete this activity.

| What is the outcome? Is it short- or long-term? | What evaluation question(s) would you ask? | Who will you collect data from? | How will you collect this data? | How often will I collect this data? | What quantitative and/or qualitative tool would you use to collect this data? |
|--|--|---|---|--|--|
| 400 pizzas will be sold each month Short-term | Did Gamecock Pizzeria increase the number of pizzas sold each month for customers? | Customers who purchase a pizza from the pizzeria each month | Count of the number of pizzas sold each month | Monthly | Descriptive statistics: count of the number of pizzas sold each month. |
| | | | | | |
| | | | | | |

Identifying Targets

In Chapter 8 (“Process Evaluation”), you learned how to identify indicators for each target. You can use the same indicator criteria from Chapter 8 (“Process Evaluation”) to identify targets for your outcome.

Remember, if your program is adapting an evidence-based or evidence-informed program, review the targets that are suggested and/or required by the model guidelines.

If you are piloting a new program, review past research or program evaluations to identify targets that may produce similar effects on your program’s outcomes.



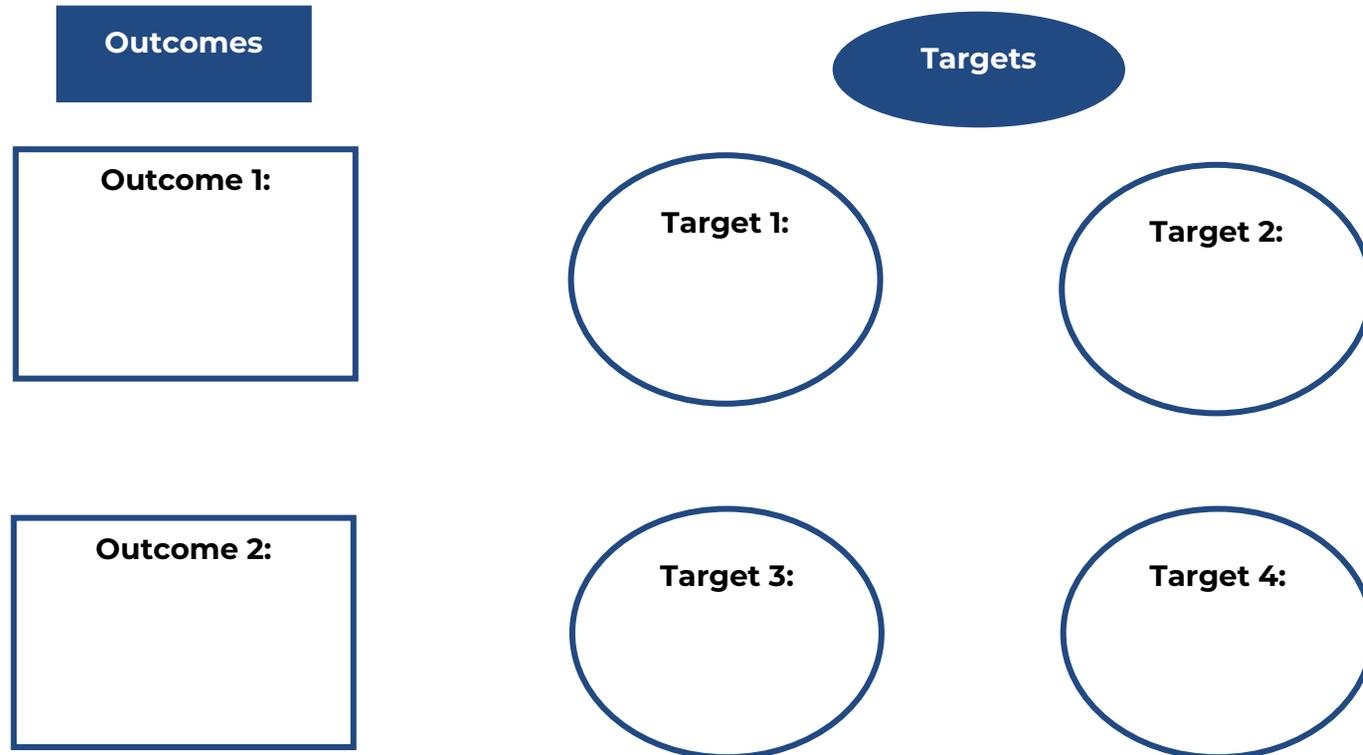
Activity 9.3

Map it out: This activity will help you identify the connection between your project's outcomes and potential targets for these outcomes.

First, write your project's outcomes in the boxes below. Put one outcome in each box.

Next, identify at least one possible target that can be used to measure each of the outcomes you have identified. Write the target in one of the circles below.

Then, draw an arrow from the target to the outcome it can be used to measure.





Activity 9.4

Rate the targets: This activity will help you review and apply the criteria for high-quality targets to the potential targets you have selected for your project.

First, write each target you have identified in the table below (Table 9.3 – Checklist Table for targets). Use the table to identify which of the seven criteria for high-quality targets has been satisfied for each target that you have written in the table.

Next, review your checklist. Based on your review of the checklist, select which target will be used to measure each outcome for your project. As a general rule, select a target that meets at least 3 of the criteria.

Finally, place a star by each target that you will use to measure the outcomes for your project.

Table 9.3 – Checklist Table for Targets

| What is the outcome? | What is the target? | What criteria does the target meet? (Place a checkmark in all that apply) | | | | | | | Place a "star" in this column to identify which target you have selected to measure each outcome in your project. |
|---|---|---|-----------|--------------|--------|----------|-----------|--------------------------------|---|
| | | Measurable | Practical | High-quality | Useful | Relevant | Sensitive | Capable of being disaggregated | |
| Example: 400 pizzas will be sold each month (short-term outcome) | Example: The number of pizzas that will be sold each month | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Measuring Outcomes

An outcome evaluation aims to identify if there was a change in a participant's knowledge, attitude, skills, or behavior as a result of participating in the program. To measure change, your outcome should be measured at minimum, at two points in time – baseline (i.e., before the program begins) and at the end of the program.

If it is practical, you may choose to include additional measurements, such as mid-way through the program, or after your program is completed (for example, 6 weeks after the program ends). By taking additional measurements after the program has ended, you can begin to understand whether your program has had a long-term impact on behavior.



Tip!

Keep in mind that it may be difficult to measure long-term outcomes due to cost, time, and ability to contact participants.

Outcome Evaluation Designs

Now that you have created your outcome evaluation questions and selected your indicators, you can choose your outcome evaluation design. An outcome evaluation design describes the context in which the measures are applied to answer your evaluation questions. There are three common outcome evaluation designs: 1) observational studies, 2) experimental studies, and 3) quasi-experimental studies. Below are brief descriptions of each type of evaluation design and an example of when each may be used.

Observational studies

You may be familiar with an observational study design. In observational studies, the researcher does not introduce an intervention, but rather collects data as they are observed. The researcher examines the impact of an intervention, behavior, or other risk factor without manipulating who is or is not exposed to the intervention.

Observational studies can be done more quickly and less expensively than a randomized study.



Tip!

In observational designs, the researchers do not assign participants to an intervention or control group, nor do they control randomization.

Example

A researcher is interested in examining how access to healthy food impacts obesity rates in a single, rural community. The community participates in an annual health assessment [completed in December each year] that measures child and obesity rates. As of December 2010, the community was considered a food desert due to the lack of affordable and healthy grocery stores in the area. In 2010, data from the annual health assessment reported that child obesity was 20% and adult obesity was 33% in the community.

In March 2011, the community opened three grocery stores to provide affordable, nutritious foods to the community.

Evaluation question: How has the presence and availability of affordable grocery stores impacted rates of child and adult obesity in the community?

Outcome: Prevalence of child and adult obesity measured in 2010, 2011, and 2012

Target: Child and adult obesity rates reported in the 2010, 2011, and 2012 community health assessment

Evaluation design: Observational. The researcher will compare changes in the prevalence of child and adult obesity before (2010) and after (2011, 2012) the community opened three grocery stores. The researcher will use publicly available data to answer the evaluation question.

Experimental studies

Experimental studies are considered the “Gold Standard” because they randomly assign participants to either the intervention or control group. An intervention group receives a “treatment” of some form (for example, professional development course on school transitions plus three hours per week of technical assistance from a school transitions specialist). The control group, in contrast, does not receive a “treatment,” but continues to engage in their normal behavior. When working with people in our communities, it is important that the control group receives a standard level of care.

For example, if prior research has shown that professional development on school transitions is associated with improved quality of classroom teaching, professional development can be considered the standard level of care. Denying individuals access to the professional development course would be unethical. It would limit access to a known intervention that is associated with positive outcomes.



Tip!

When we can trust that the participants do not differ in systematic ways, we can trust that a positive effect in the outcome is due to the presence of the intervention.

By randomizing participants to a group, we can assume that participants in the two groups should not differ in systematic ways. Further, because of randomization, we can demonstrate that the intervention was necessary to produce improvements (i.e., those who improved would not have improved on their own [without the intervention]).

Another important component of experimental studies is the concept of blinding. An experimental study can either be a single-blind or double-blind study. The purpose of blinding is to protect against bias. If researchers are blind to the treatment assignment, it reduces the risk that their hypotheses will impact analyzing and reporting of outcomes of the study. If participants are blind to the treatment assignment, it reduces the risk that participants will alter their behavior to “perform” in a way they believe the researchers would view favorably.

Single-blind studies can be commonly seen in studies that examine food and taste preferences. For example, food researchers can assess whether young adults prefer high-fat or low-fat chocolate by randomly giving participants two pieces of chocolate. Both pieces of chocolate will look, weigh, and feel the same. The only difference in the chocolate will be the amount of fat content; however, the fat content will not be revealed to participants. Participants will be asked to eat the two pieces of chocolate and then indicate which piece of chocolate they prefer.

In a double-blind study, both the participant and the researcher are unaware of which participants are in the intervention or the control group. Double-blind studies can be used to study the impact of a medication on an outcome. In these medication studies, all participants receive a medication. In a double-blind study, a staff member will randomly assign participants to the intervention or the control group. The staff member will keep the randomization assignments private from the researchers.

Participants in the intervention group will receive a medication with the active treatment while participants in the control group will receive a “placebo medication” (often a sugar pill) that has no intended treatment effect. A placebo medication is designed to look like the treatment medication so that individuals are unaware of whether they are in the treatment or control group. At the end of the study, researchers can then test whether the active ingredient in the medication had an effect on the outcome.

When working with individuals in our communities, it is important to acknowledge the history of human subjects research. In the past, humans were subjected to unethical treatment in under the guise of medical research and advancement. Historic incidents of unethical treatment of human subjects can be found in the Nuremberg Trials and the Tuskegee Syphilis Study. As a result of these studies, the Commission for the Protection of Human Subjects and Biomedical and Behavioral Research developed the Belmont Report. The Belmont Report provides a set of guidelines and principles that individuals should follow when conducting research with humans. The three “basic ethical principles” identified in the report are the respect for persons, beneficence, and justice.¹ The following descriptions of the three ethical principles were adapted from the Belmont Report.

The principle of respect for persons indicates that individuals should be treated as autonomous. For individuals whose autonomy is reduced (for example, infants, individuals with a physical or mental illness, or individuals who are incarcerated), it is imperative to protect their rights.

The principle of beneficence encompasses two concepts. The first concept is do no harm. The second concept is to maximize the benefits while minimizing potential harm among participants.

The principle of justice posits that the opportunity for benefit should be equally distributed among all participants. Further, the potential for burden should be equally distributed among all participants.

For further reading on how to uphold and protect the rights of humans when conducting research, please consider reviewing the Belmont Report.¹

Example

A study is interested in examining the impact of a reading intervention on parent-child reading interactions. Twenty families are randomly assigned to participate in either a treatment group (i.e., participants will read to their child for 10 minutes per day) or a control group (i.e., participants will be told to engage in their normal daily routines). At the beginning of the program, the average daily time spent reading will be measured for all participants. Additionally, a parent-child reading interaction assessment will be recorded at the beginning of the program. At the end of the 6-week program, the average daily time spent reading and the parent-child reading interaction assessment will be re-administered for all participants.

Participants who receive the reading intervention are expected to read with their child for 10 minutes per day. Participants in the control group were told to continue engaging in their normal routine. If participants were able to select which group they would like to participate in, researchers may find that participants who select the intervention group have more access to books or have a higher literacy rate compared to participants in the control group. Thus, it would be difficult to clearly understand whether changes in parent-child reading interactions at the end of the program were due solely to participation in the intervention.

Evaluation question: How does a daily, 10-minute parent-child reading practice impact parent-child reading interactions?

Outcome: Parent-child reading interactions

Target: Parent-child reading interaction score from the Savvy Reading Parent Assessment; average daily time spent reading to child

Evaluation design: Experimental. The researcher will compare changes in the parent-child reading interaction score and the average daily time spent reading to child. The researcher will compare changes from the beginning of the program to the end of the 6-week program. The researcher will use a t-test to compare differences in the outcomes between the treatment and control group.

Treatment group: Participant reads to child for 10 minutes per day

Control group: Participant engages in normal daily routine

Quasi-experimental studies

Quasi-experimental studies are similar to experimental designs, except that the participants are not randomized to an intervention or a control group.

Quasi-experimental studies are often used when it is not feasible, practical, or ethical to randomize participants to an intervention.

South Carolina First Steps typically uses quasi-experimental studies to assess the impact of our programs on child-level outcomes. Administrative data (such as the number of home visiting sessions a participant attends) are compared between children who have participated in a First Steps program and similar children who have not participated in a First Steps program.

To make the comparison between these two groups, children who participate in a First Steps program are “matched” with their peers on factors such as age, race/ethnicity, and gender. By matching children on these characteristics, we can have more confidence in our findings that the difference in outcomes is due to participation in a First Steps program.



One of the most common forms of a quasi-experimental study is a pre-post comparison among a group of program participants.

Example

A study is interested in examining the impact of a school transition program on children’s academic readiness. Previous research suggests that transition programs improve children’s academic readiness upon kindergarten entry. Randomizing children to receive a summer transition program would be unethical – if the program is known to have a beneficial impact, withholding the program from individuals that need it would be unethical.

Instead, researchers decide to compare changes in children’s academic readiness between children who were eligible to participate in the transition program and participated, children who were eligible to participate in the transition program but did not participate, and children who were not eligible to participate in the program.

Evaluation question: How does participation in a summer transition program impact children’s kindergarten readiness?

Outcome: Kindergarten readiness

Target: Overall and domain scores on the Kindergarten Readiness Assessment

Evaluation design: Quasi-experimental. The researcher will compare changes in children’s academic readiness between three groups: 1) those who were eligible and participated in the program, 2) those who were eligible but did not participate in the program, and 3) those who were not eligible to participate in the program. The researcher will compare differences in the overall Kindergarten Readiness score between the three groups.

Treatment group: Children that were eligible and participated in the summer transition program

Comparison group(s): Children that were eligible but did not participate in the summer transition program, children that were not eligible to participate in the summer transition program

Tying it together- Linking findings across the Theory of Change Domains

To determine your project's true effect, you will need to consider more than its impact on the outcome. During an outcome evaluation, it is also important to look at the reach of your program. Not only is it important to understand how many people participated in your program, but also it is important to understand whether the people that participated in your program were who you intended to target.

Gathering evidence across multiple domains of your Theory of Change will provide more complete information to determine if your program was successful.

| Theory of Change Domain: Strategies & Targets (Reach) | Theory of Change Domain: Outcomes (Impact) | Theory of Change Domain: Forces of Change (Context) |
|---|---|--|
| <ul style="list-style-type: none">•What was your goal for recruitment?•How close were you to reaching your goal?•How many participants completed the entire program?•How many participants dropped out of the study? | <ul style="list-style-type: none">•Did you observe a change in your outcome?•How much of a change did you observe?•Was it in the anticipated direction? | <ul style="list-style-type: none">•How does the effect of your program change based upon participant characteristics (for example, age, race, sex)?•Did some participants experience barriers or resources that affected their ability to benefit in the program? |

Taken together, these questions will help you understand not only if your program was successful, but how and for whom. You can use the notes section at the end of this chapter to record your responses to these questions.

Summary

Your choice of evaluation design will depend on the quality of evidence you need and if participant randomization is practical for your program intervention. Now that you have developed your outcome evaluation design questions (Activity 9.2), identified your outcome targets (Activity 9.4), and selected your outcome evaluation design (Activity 9.5), you are ready to collect data. Remember to use the notes section at the end of this chapter to record changes in your outcomes. In the next two chapters we will discuss how to make decisions based on your data.

Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 10: Formative Evaluation Decision-Making



Now that you have the data, the next step is to interpret what the data show about your program. Remember, a formative evaluation answers the question, “Can the program be implemented in a way that is consistent with participant expectations?” To answer this question, you developed several guiding questions that aligned with the Five Elements of Formative Evaluation (i.e., reach, quality, completeness, satisfaction, and context).

Like the human body’s vital signs (for example, temperature, blood pressure), each element of a formative evaluation measures a unique yet valuable indicator of program implementation. In the figure on the right, we can imagine each element is represented by a body part.

Reach is represented by the hands, reminding us to reflect on how many people were served.

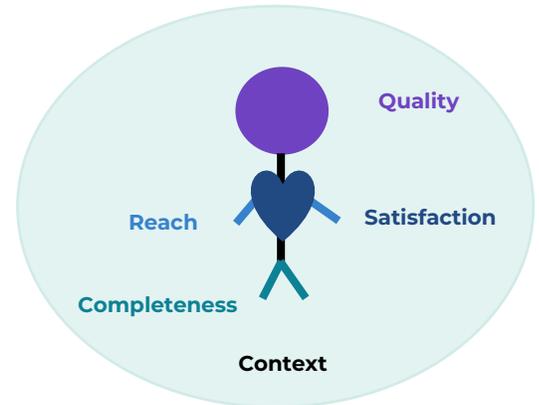
Quality is represented by the head and brain, reminding us to reflect on whether the program was implemented as planned.

Completeness is represented by the feet, reminding us to reflect on the degree to which the participants completed the intended number of program activities and assessments.

Satisfaction is represented by the heart, reminding us to reflect on how participants felt about their participation in the program.

Context is represented by the whole person, reminding us to reflect on what factors (such as where the person lives, works, and plays) may influence our findings.

Evaluating data from all five indicators will enable you to fully assess your implementation success.





Activity 10.1

Review your results: The goal of this activity is to help you review the data gathered from your formative evaluation to determine whether your goals were achieved.

Using the Table 10.1 write down the goal that your team set for the reach, quality, and completeness of your project.

Next, put a “checkmark” if your goal was achieved and an “x” if your goal was not achieved for each element (i.e., reach, quality, and completeness).

Finally, in the last column, provide a piece of data that supports your assessment of whether your goal was met.

Table 10.1 – Summary of Formative Evaluation Data Collection

| What was your goal? | Was your goal achieved? | What data supports your conclusion? |
|--|-------------------------|---|
| Hire 3 pizza delivery drivers. | ✓ | 5 delivery drivers were recruited. |
| | | |
| Sign two MOUs, one with each delivery service entity. | ✓ | An MOU was signed for each delivery service entity. |
| | | |
| 75% of total pizza sales per month will be via delivery. | ✗ | Pizza sales. Goal never met. |
| | | |

Do not fret if your goals were not met! Remember, this process is about learning what worked and what did not.

Understanding what about your program did not work and why can help you develop strategies to improve your program in the next innovation cycle. Reflecting on whether your goals were met is a great opportunity to incorporate community voice into your decision-making.



Activity 10.2

Barriers and breakthroughs: The following activity will help you reflect on the unexpected and expected barriers and breakthroughs that you encountered during the implementation of your program.

Use the space provided to answer the following questions for each element of the formative evaluation (i.e., reach, quality, and completeness) found below.

Reach

Unexpected

1. What barriers did you encounter in recruiting and retaining participants?
2. Were you able to resolve these barriers for some participants?
3. What actions did you take to resolve these barriers?
4. Were these action steps successful? Why or why not?

Quality

Expected

1. What worked to implement your program strategies?

2. Will you replicate these strategies in the next implementation cycle?

Completeness

Unexpected

1. Did participants experience any challenges completing the expected activities?

2. What made it challenging for participants to complete the expected activities?

3. What actions did you take to resolve these barriers?

4. Were these action steps successful? Why or why not?



Activity 10.3

Go fish: The goal of this activity is to help you understand how the elements of satisfaction and context are interwoven with your goals for reach, quality, and completeness.

Using the fishbone diagrams below, write your outcome for your reach, quality, and completeness goals in the oval of the respective diagram.

Underneath each oval, indicate whether the goal was met or not met.

Next, identify at least one piece of satisfaction data that can provide a possible reason as to why the goal was met or not met. Write this piece of information on one of the diagonal lines on the top of the fishbone diagram.

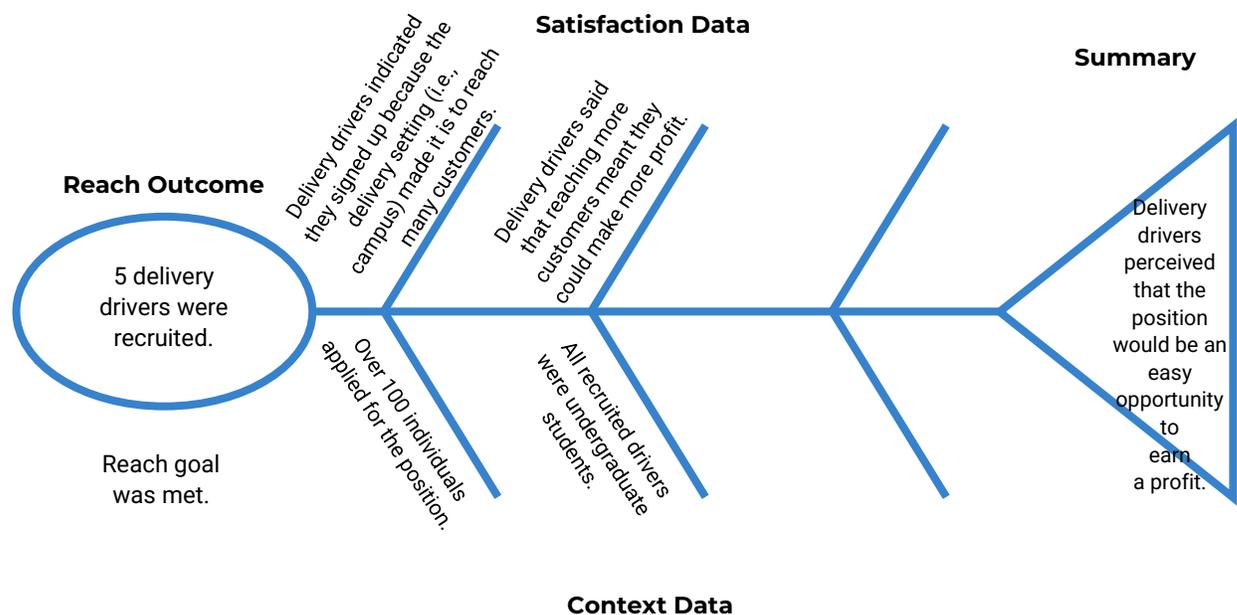
- Repeat this process, writing additional pieces of satisfaction data on the diagonal lines on the top of the fishbone diagram.

Then, identify at least one piece of context data that can provide a possible reason as to why the goal was met or not met. Write this piece of information on one of the diagonal lines on the bottom of the fishbone diagram.

- Repeat this process, writing additional pieces of context data on the diagonal lines on the bottom of the fishbone diagram.

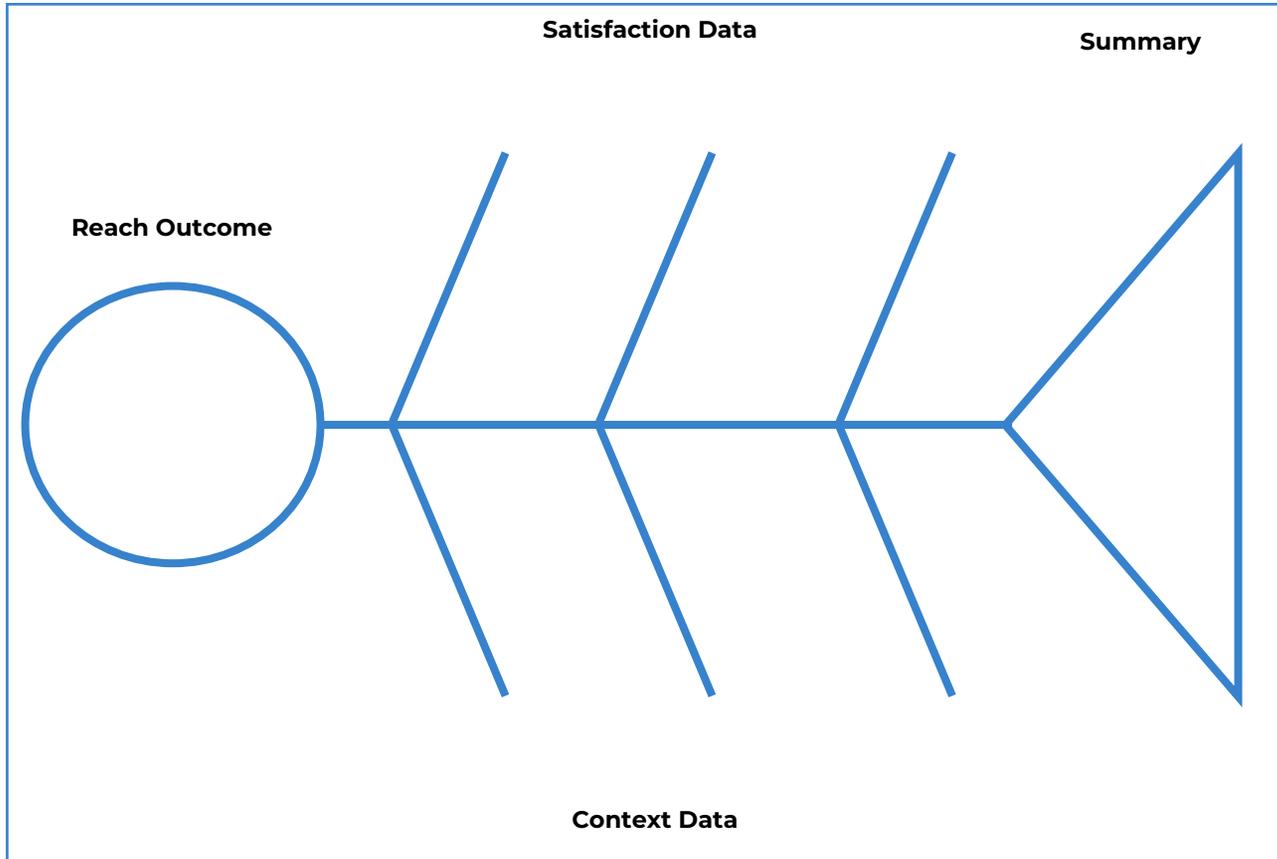
Finally, in the triangle at the end of the fishbone diagram, write a summary (based on your satisfaction and context data) that highlights why the goal was met or not met.

An example fishbone diagram is provided for reach, quality, and completeness.



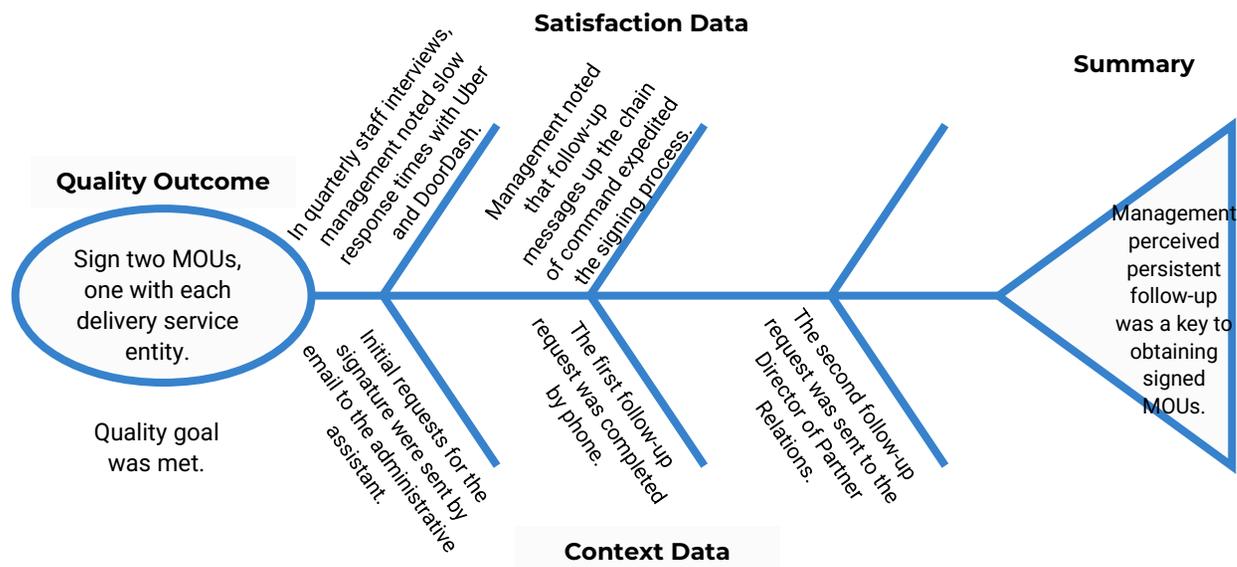


Activity 10.3



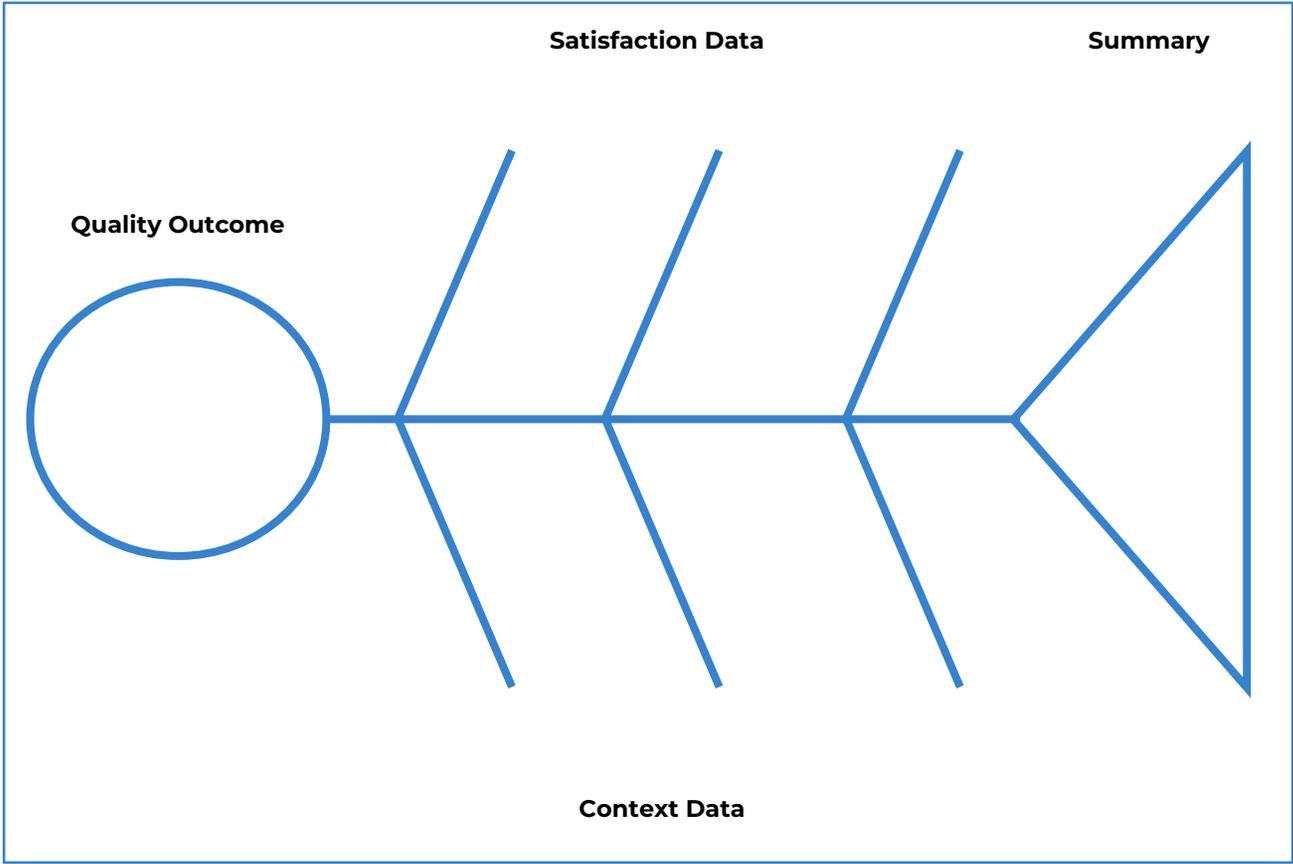


Activity 10.3



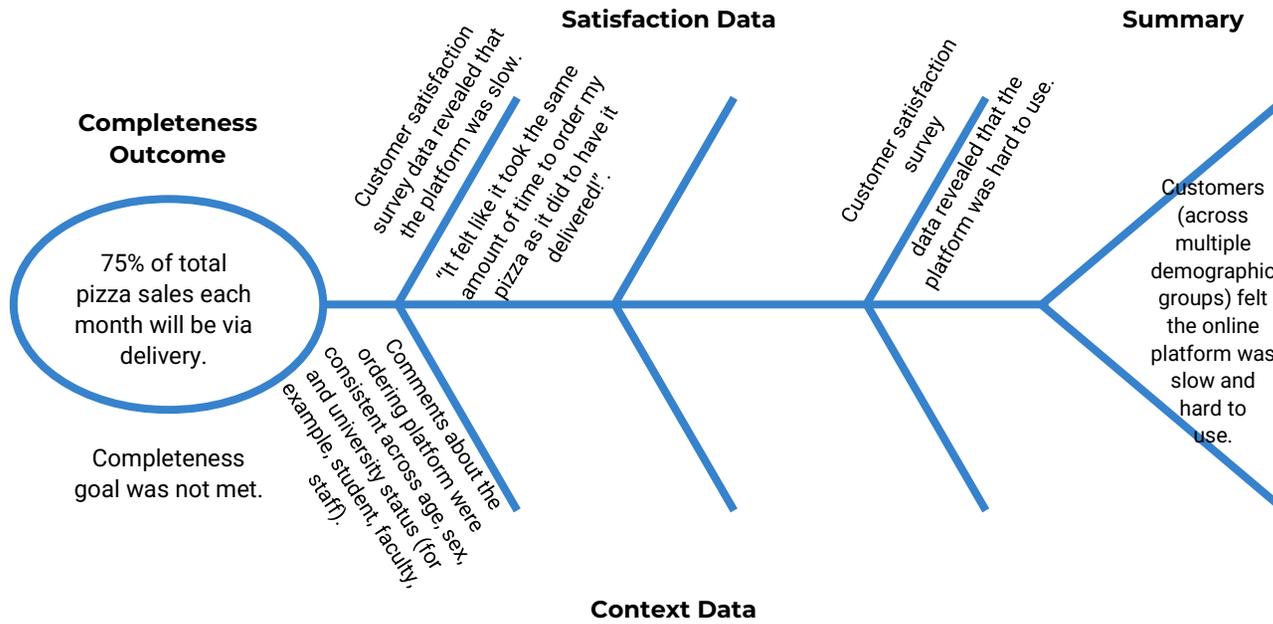


Activity 10.3



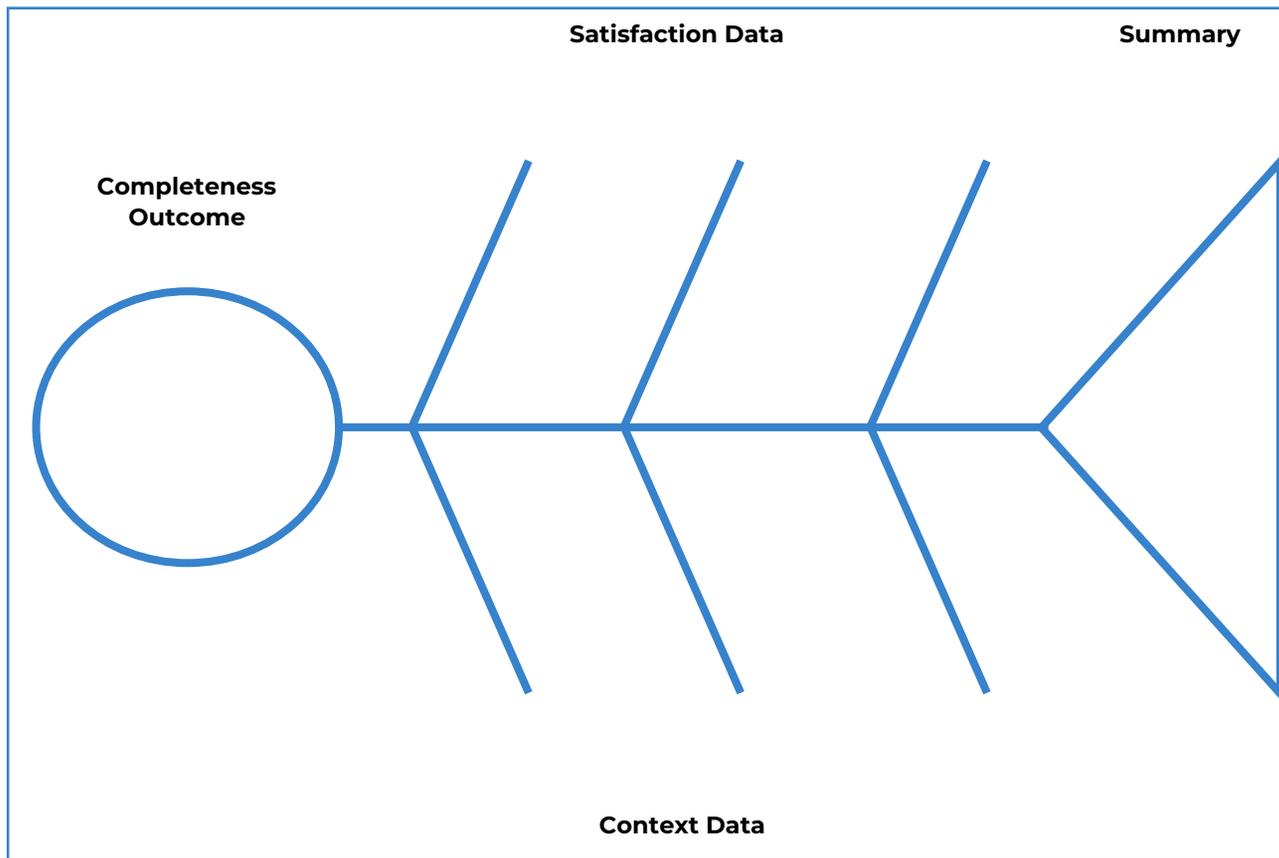


Activity 10.3





Activity 10.3



The final step is to decide how you will improve upon your innovation in the next implementation cycle. Think about which strategies will be maintained and what new strategies will be developed in the next innovation cycle.



Activity 10.4

Love it or leave it: The following activity will help you decide on which strategies you will maintain for your next implementation cycle.

Review your answers to Activities 10.1, 10.2, and 10.3. Based on your review of the data, indicate which strategies you will “keep,” “remove,” or “modify” for the next implementation cycle using the space provided.

If you plan to modify a strategy, describe how you will modify the strategy for the next implementation cycle.

Strategies to Keep

| |
|--|
| |
|--|

Strategies to Remove

| |
|--|
| |
|--|

Strategies to Modify

| |
|--|
| |
|--|

Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 11: Process and Outcome Evaluation Decision-Making



Now that you have analyzed the data, the next step is to interpret what the data show about your program. Remember, the goal of evaluation in this grant is **not to prove** that the program works, but to **improve** it by learning **what about it works and what does not**. It can be easy for individuals with evaluation expertise to take the lead with data analysis and interpretation. For this grant, you will want to include the entire program team in the evaluation process. Three primary questions will help your team determine how to best improve your innovation project.

Question #1: What does the data show?

The first step is to summarize what the data shows. To answer this, you will need to review the evidence from your innovation project. Using the information from Table 8.1 in Chapter 8 (“Process Evaluation”) and Table 9.1 in Chapter 9 (“Outcome Evaluation”), complete the evaluation summary statements below.

Evaluation Summary Statements (for all participants)

- 1) Our program was designed to _____ (**program goal**).
- 2) We found that among _____ (**insert population**) who _____ (**cite program activity**), there was a _____ (**statistic**) change in _____ (**target/outcome**).
- 3) We also found that among _____ (**insert population**) who _____ (**cite program activity**), there was a _____ (**statistic**) change in _____ (**target/outcome**).

Example

- 1) Our program was designed to increase the number of pizza sales to 400 (**program goal**).
- 2) We found that among customers (**insert population**) who received the delivery service informational fliers (**cite program activity**), there was a 25% increase (**statistic**) in the number of pizza sales between month 1 and month 6 (**outcome**).

Forces of Change Summary Statements (for a specific group within your program)

- 1) Importantly, for _____ (population) who _____ (some common characteristic or activity [for example, age, sex, completed all program sessions]) there was a _____ (statistic) change in _____ (target/outcome).
- 2) Based on participant feedback, _____ (reference an explanation/barrier given from participant satisfaction data) could drive differences in our targets/outcomes among _____ (population) who _____ (some common characteristic or activity [for example, age, sex, completed all program sessions]).

Example

- 3) Importantly, customers (population) who were faculty/staff (some common characteristic or activity) had a 150% decrease in (statistic) sales between months 1 and month 6 (outcome).
- 4) Based on customer feedback, difficulty using the customer service platform (reference an explanation/barrier given from participant satisfaction data) could drive differences in our targets/outcomes among customers (population) who were faculty/staff members (some common characteristic or activity).



Activity 11.2

What do the data show?: The goal of this activity is to help you summarize the data collected during your process and outcome evaluation.

Use the space provided to complete the three forces of change summary statements using data collected from your process and/or outcome evaluations.

- 1) Importantly, for _____ (population) who _____ (some common characteristic or activity [for example, age, sex, completed all program sessions]) there was a _____ (statistic) change in _____ (target/outcome).
- 2) Based on participant feedback, _____ (reference an explanation/barrier given from participant satisfaction data) could drive differences in our targets/outcomes among _____ (population) who _____ (some common characteristic of activity [for example, age, sex, completed all program sessions]).

Question #2: What does this mean?

After you have summarized your findings, the next step is to make sense out of the data. During this step, you will become an investigator.



As an investigator, you will uncover possible reasons that help explain the findings of your innovation project. You will review each data source and ask,

“What does this data show about the program’s ability to achieve its goals?”

“How much evidence do I have to support my conclusions?”

To fulfill the role of an investigator, you will need to review your Theory of Change (found in Chapter 4, “Theory of Change”). As you look at the specific goals for your targets and outcomes, think about all the pieces of data you have collected during your process and outcome evaluations (for example, quantitative findings, participant satisfaction data).

For each goal that you have identified, you will need to consider the degree to which the goal was met.

It can be helpful to map out your goal, whether the goal was met, the data to support your conclusion, and the degree to which your goal was met using the stoplight system.

In the stoplight system, a “red light” indicates that the goal was not met. A “yellow light” indicates there was some change (i.e., within 10% of your goal) in your goal. A “green light” indicates that your goal was met.

Goal not met



Some change



Within 10% of your goal

Goal met



Example

| Is this a target or an outcome? | What was the goal? | What does the data say? | What is degree to which your goal was met? |
|---------------------------------|--|--|---|
| Target | Increase customer knowledge of delivery option by including an informational flier with 100% of orders during the first 30 days of implementation. | 100% of orders received a flier during the first 30 days of implementation. |  |
| Target | 95% of delivered pizzas are accurate to customer order each month. | Delivery accuracy was within 10% of goal during Months 4 (84% accurate) and Month 5 (89% accurate). |  |
| Outcome | 400 pizzas will be sold each month. | Month 1: 365 pizzas sold Month 2: 375 pizzas sold Month 3: 390 pizzas sold Month 4: 410 pizzas sold Month 5: 428 pizzas sold Month 6: 450 pizzas sold |  |

In Table 11.1, the goal to sell 400 pizzas each month was not met during the first 3 months of the program, but the number of sales were within a 10% range of the goal (i.e., 360 pizzas). During the last 3 months of the program, the number of sales were above the goal. Our team decided that this would be considered evidence of some change, instead of evidence that the goal was not met.

It is important to note that the threshold for success is not fixed (i.e., “some change” is considered being within 10% of your goal). You can work with your project team to determine what criteria makes sense for your innovation project.



Activity 11.4

What does this mean?: The goal of this activity is to help you map out the findings from your project and determine the degree to which your project’s goals were met.

Using the table below, write the goal for each target and outcome that was listed on your Theory of Change.

Next, provide a piece of quantitative and/or qualitative data that you collected related to this goal.

Finally, in the last column, put a colored dot that represents the degree to which the goal was met. Remember the stoplight!

- Red = Goal not met
- Yellow = Some change (for example, within 10% of your goal)
- Green = Goal met

| Is this a target or an outcome? | What was the goal? | What does the data say? | What is degree to which your goal was met? |
|---------------------------------|--------------------|-------------------------|--|
| | | | |
| | | | |
| | | | |

Question #3: Now what?

After you have evaluated the evidence of your project, the final step(s) in this process are to report and respond. During this step you, you will become an author as you report on the findings.



As an author, you will write the story that the data have shown. You have the opportunity and responsibility to weave together quantitative and qualitative data to tell the story of your project's history, implementation, and findings during this evaluation journey. You will review the data and ask,

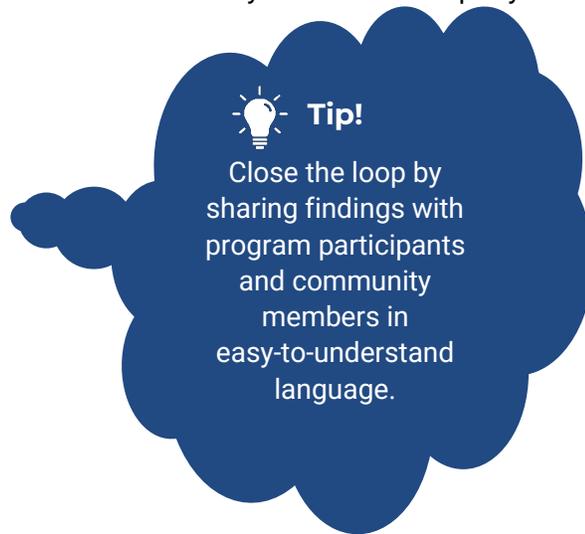
"What did we learn from this project?"

"What success can we highlight from this project?"

"How will we adapt and improve this program moving forward?"

As you prepare your report, consider how you will share the findings with your community. Will you share the findings as an infographic, a two-page summary, or a brief video? Will you host a "data party" where community members can come together to learn about the findings and ask your team questions about the project?

This grant is about improving outcomes for the people that you serve through your innovation project. Closing the loop with your community helps build trust and relationships. Closing the loop can lead your team on a journey that shifts from viewing data as a transactional exchange to a transformational experience.



As you develop your report, it is also important to plan for the next implementation cycle. Your team will need to respond to the data by reviewing the degree to which each target and outcome was reached and reviewing the feedback you received from program providers and participants.

Remember, this evaluation journey is a learning process that strives to continuously improve outcomes for your community. As you make plans for the future, keep this core value and the spirit of continuous learning and improvement in mind.



Activity 11.4

Develop an action plan: The goal of this activity is to create an action plan for your next implementation cycle based on the data and feedback you gathered during your process and/or outcome evaluation.

Use the space provided to answer the following questions.

1. Thinking about your Theory of Change, are there any components that need to be added, removed, or modified during your next implementation cycle?
2. How could you change the way your program is delivered to better meet the needs of your participants?
3. What changes can you make to the assessment of your program targets and/or outcomes?

You can also use the Action Planning Sheet (found in Appendix 3) to write down the specific program changes your project team plans to make in the next implementation cycle. When preparing for your next implementation cycle, it will be helpful to answer the following three questions: (1) What will I do?, (2) When will I do it?, and (3) How will I do it? In the Action Planning Sheet, you will list the strategies you plan to implement, a timeline for implementation, and the action steps needed to accomplish the strategies you have described.

Your findings, action plan, and implementation timeline will help inform the next destination in your evaluation journey. You can also use the two flow charts as a guide to help lead your project team into the next implementation cycle.

If your team has completed a process evaluation, use the flow chart in Figure 11.1 as your guide.

If your team has completed an outcome evaluation, use the flow chart in Figure 11.2 as your guide.

Figure 11.1 – Early Childhood Innovation Implementation Flow Diagram for a Process Evaluation

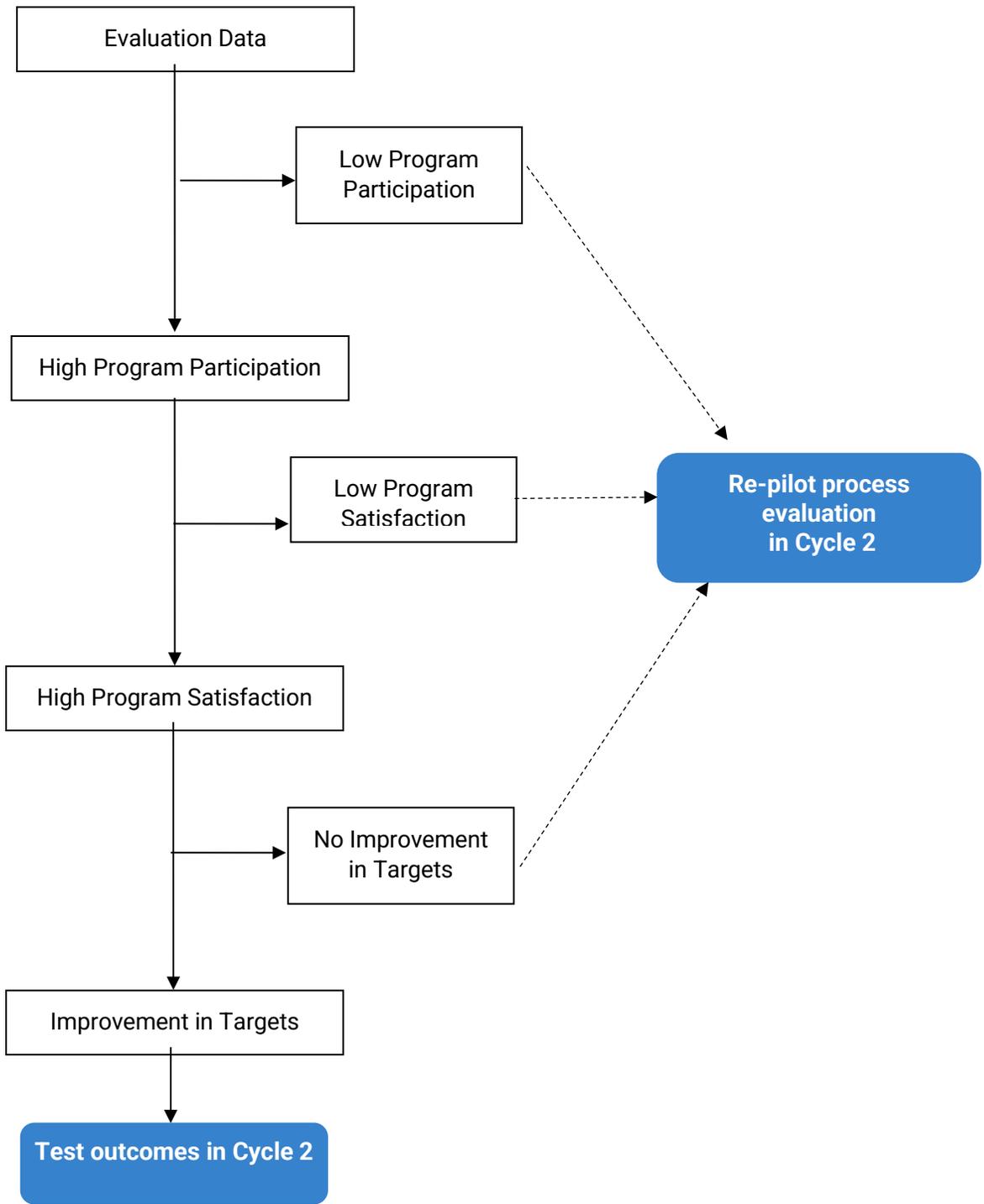
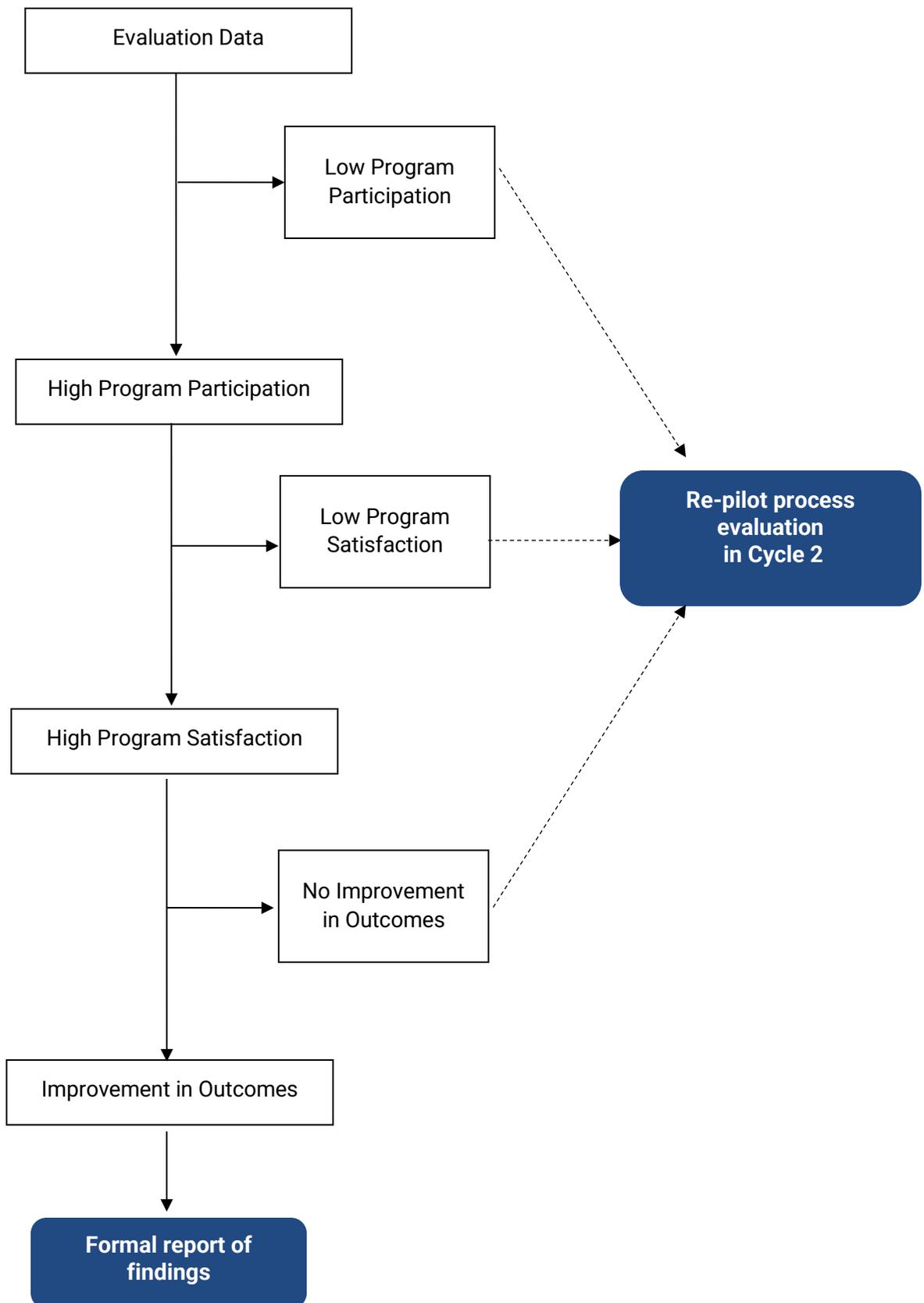


Figure 11.2 – Early Childhood Innovation Implementation Flow Diagram for an Outcome Evaluation

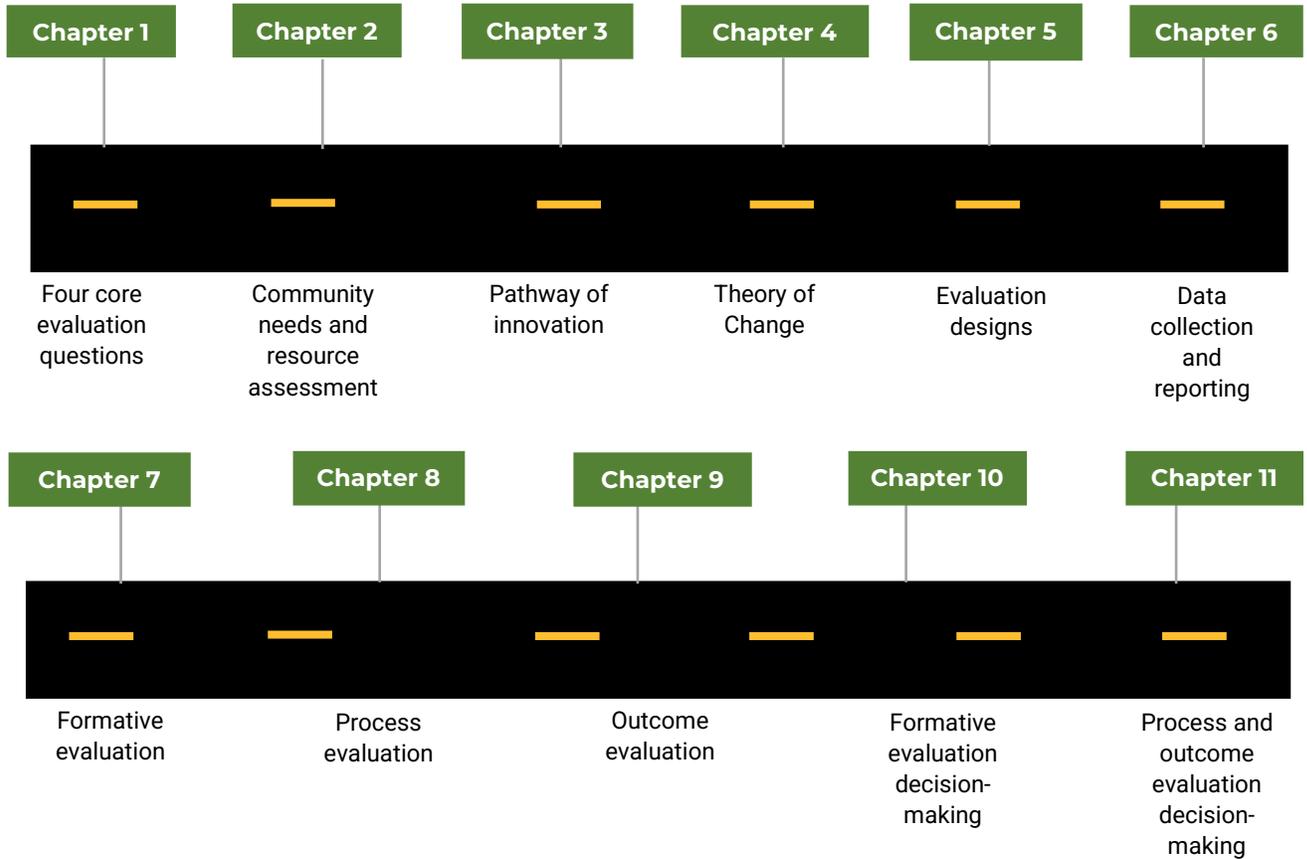


Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Chapter 12: Reflect and Revise

Congrats! You have now completed your first start-up, implementation, and decision-making cycle. Through this process, you and your project team have gone on an evaluation journey. The roadmap below will highlight what your team experienced, learned, and completed during this journey.



It is important to remember that these are not two parallel roads, but one winding road on your evaluation journey. On your journey, you faced a fork in the road when you selected the evaluation design that you would use to evaluate your innovation project. Now that you have completed the first leg of your journey, it is time to pause and reflect on what your team has learned during this journey.



Activity 12.1

Sharing lessons learned: The goal of this activity is to help you reflect on what your project team has learned during your first implementation cycle.

Use the space provided to answer the following questions.

1. What lessons did you learn from this project that can be shared with internal stakeholders?
With external stakeholders?

2. Are you missing knowledge/expertise from any groups (i.e., community partners, kinship caregivers, etc.)? How can you incorporate their voice into the next implementation cycle?

3. What are your goals for your next implementation cycle? What do you want to learn?

During your initial process evaluation, you may have learned what strategies worked well and were well-accepted by your staff and participants. These may be components you decide to keep for your next implementation cycle.

You may have also learned what strategies did not quite hit the mark – either they were not feasible or participants did not enjoy those strategies. You may have also learned why your participants did not enjoy those strategies and strategies that they may have enjoyed more. Take this feedback into consideration as you revise your Theory of Change.

As you prepare for the next phase of your project, it may be necessary to revise your Theory of Change based on what you learned during your process evaluation. A core component of the CC4ECI grant is that learning leads us into the future. As mentioned earlier, one of the goals of the CC4ECI grant is to **improve outcomes** for the community, **not just to prove what works**. With a mindset of growth, we can view feedback as fundamental to future success. The information you gather from your stakeholders can help you continue to tailor the program to best meet the needs of your community.



Activity 12.2

Respond and revise: The following activity will help you apply the feedback and lessons learned from your first implementation cycle to the revision of your Theory of Change.

Gather your project team and revise your Theory of Change. Make sure that you include all members of your project team in the revision process.

If you identified that additional stakeholder voices were missing from the initial implementation cycle, consider inviting them to participate in the revision process with your project team.

Blank Theory of Change templates are included on the following pages.



Activity 12.2

Theory of Change Revision: ADAPT



REVISED THEORY OF CHANGE (ADAPTED PROGRAM), XYZ COUNTY FIRST STEPS

| STRATEGIES THAT ARE THE SAME Program actions to achieve desired changes. | TARGETS Skills, behaviors, beliefs, attitudes, and knowledge directly targeted by the program strategies. | OUTCOMES Ultimate goals you hope the program will achieve. Indicate for each population (e.g., Parents/caregivers and children). |
|---|---|--|
| | | |
| STRATEGIES THAT ARE DIFFERENT The defining characteristics that set your innovation apart. | | |
| | | |
| <p style="text-align: center;">Forces of Change</p> <p style="text-align: center;">Characteristics of individuals or their environment that may affect which participants benefit more from a program and which participants benefit less or not at all.</p> | | |
| | | |



Activity 12.2

Theory of Change Revision: PILOT



REVISED THEORY OF CHANGE (NEW PROGRAM), XYZ COUNTY FIRST STEPS

| <p>STRATEGIES Program actions to achieve desired changes.</p> | <p>TARGETS Skills, behaviors, beliefs, attitudes, and knowledge directly targeted by the program strategies.</p> | <p>OUTCOMES Ultimate goals you hope the program will achieve. Indicate for each population (e.g., Parents/caregivers and children).</p> |
|--|---|--|
| | | |
| <p>Forces of Change Characteristics of individuals or their environment that may affect which participants benefit more from a program and which participants benefit less or not at all.</p> | | |
| | | |

Notes

Use the space below to record any thoughts, questions, or ideas you may have as you plan and implement your innovation project.

Glossary

Average – A descriptive statistic that represents the single location where most of the data in your data set lie. The average is calculated by dividing the sum of all the data points by the total number of data points. **(Chapter 6 Part 2)**

Code – The main topic of a group of 2-3 sentences that is recorded during an interview or focus group. **(Chapter 6 Part 3)**

Completeness – An element of a formative evaluation that reflects the degree to which participants completed the intended number of program activities and assessments. **(Chapter 7, 10)**

Context – An element of a formative evaluation that measures which factors (such as where the person lives, works, and plays) may influence findings. **(Chapter 7, 10)**

Continuous data – Numbers that can have any value within a given range and can include fractions and decimals. Temperature, weight, and height are examples of continuous data. **(Chapter 5)**

Descriptive statistics – Statistics, such as frequencies, averages, and percentages, that can be used to describe data. **(Chapter 6 Part 2)**

Discrete data – Numbers that can be counted. Examples of discrete data include age and number of sessions attended by a program participant. **(Chapter 5)**

Double-blind study – A study design in which both the participant and the researcher are unaware of which participants are in the intervention or control group. **(Chapter 9)**

Evidence-based/evidence-informed (EB/EI) program – A program that is based on a clear and consistent program model, grounded in published, peer-reviewed research, and is commonly recognized by experts in the field as such a program. **(Chapter 3)**

Evaluation design – The method of evaluation that will be used to gather information and data to answer evaluation questions. The three types of evaluation designs are formative evaluation, process evaluation, and outcome evaluation. **(Chapter 5)**

Experimental study – An evaluation design that is considered the “gold standard” of evaluation designs due to the random assignment of participants to either an intervention or control group. **(Chapter 9)**

Forces of Change – Specific domain of a theory of change that identifies characteristics of individuals or their environment that may affect which participants benefit more from a program and which participants benefit less or not at all. **(Chapter 4, 9)**

Formative evaluation – The preliminary evaluation design which investigates whether program strategies are feasible and acceptable. **(Chapter 5, 7, 10)**

Indicators – The specific measurable characteristics that show progress toward a program goal has been made. **(Chapter 8)**

Inferential statistics – Statistics that can be used to help individuals draw conclusions or make predictions based on their data. **(Chapter 6 Part 2)**

Interview guide – The set of questions that will be asked to respondents during an interview. **(Chapter 6 Part 3)**

Measurement – The process of identifying what you want to learn, what resources are available to gather information, and determining how data will be used and by whom. **(Chapter 6 Part 1)**

Measures – The tools used to gather information about program performance and the impact of a program on a population. **(Chapter 6 Part 1)**

Median – A descriptive statistic that represents the middle value in your data set. The median is calculated by listing your data points in ascending order, then identifying the center most point. **(Chapter 6 Part 2)**

Mode – A descriptive statistic that represents the precise value where most of your data points lie. The mode represents the number in your data set that shows up the most often. **(Chapter 6 Part 2)**

Needs – The gaps between the current state and the ideal state. A need can be tangible or abstract. A need can be felt at the individual, family, or community level. **(Chapter 2 Part 1)**

Needs and Resource Assessment – A data collection tool that evaluates community needs and resources to guide agency strategies and priorities. **(Chapter 2 Part 2)**

Observational study – An evaluation design in which the researcher collects data as they are observed. There is no randomization in an observational design. **(Chapter 9)**

Outcome evaluation – The ultimate evaluation design which investigates the impact of program strategies on program targets and outcomes. **(Chapter 4 & 9)**

Outcomes – The ultimate goals you hope the program will achieve in caregivers and children. Outcomes should be specific, measurable, achievable, relevant, and time-bound. **(Chapter 4, 5, 9, & 11)**

Paired sample t-test – An inferential statistic that can be used to compare the average for an outcome within a single group of participants at two points in time. **(Chapter 6 Part 2)**

Percent change – An inferential statistic that represents the amount of change between two values. The percent change is calculated by finding the difference between two values, dividing by the original value, and multiplying the result by 100. **(Chapter 6 Part 2)**

Probing question – Follow-up questions that are used in an interview to gain deeper insight into what was shared or clarify information shared by the interviewee. **(Chapter 6 Part 3)**

Process evaluation – The intermediate evaluation design which investigates whether the program targets change in the expected direction. **(Chapter 5, 8, 11)**

Purposeful sampling – A sampling technique that allows you to intentionally select participants who hold specific characteristics that may lead to valuable perspectives in the interview. **(Chapter 6 Part 3)**

Qualitative data – Verbal data that can be used to answer context-specific questions that numeric data cannot answer alone. Qualitative data can be written or spoken. Common data collection methods include surveys, interviews, and focus groups. **(Chapter 5, Chapter 6 Part 3)**

Quality – An element of a formative evaluation that reflects whether a program was implemented as planned. **(Chapter 7, 10)**

Quantitative data – Numeric data used to answer evaluation questions. Common analytic tools include descriptive and inferential statistics. **(Chapter 5, Chapter 6 Part 2)**

Quasi-experimental study – An evaluation design in which the researcher manipulates a variable (for example, participation in a program), but participants are not randomly assigned to an intervention or control group. A quasi-experimental study is often used when randomization of participants to a treatment or control group is impractical or unethical. **(Chapter 9)**

Random sampling – A sampling technique that allows you to gather a diversity of perspectives by randomly selecting individuals from a subgroup of your priority population. **(Chapter 6 Part 3)**

Reach – An element of a formative evaluation that reflects how many individuals were served by a program. **(Chapter 7, 10)**

Reliability – The consistency of a tool. The ability of a tool to produce similar results over repeated measurements. **(Chapter 6 Part 1)**

Resources – Assets, such as individuals, organizations, or features of the natural or built environment, that enhance life in a community. **(Chapter 2 Part 1)**

Satisfaction – An element of a formative evaluation that measures how individuals felt about their participation in the program. **(Chapter 7, 10)**

Saturation – The point at which you begin to hear the same themes repeated consistently among participants during your interviews. **(Chapter 6 Part 3)**

Single-blind study – A study design in which only the researcher knows which group participants have been randomized to for the study. Participants in the study do not know whether they are in the intervention or control group. **(Chapter 9)**

Strategies – Specific domain of a theory of change that identifies the specific program activities expected to produce a change in the program outcomes. **(Chapter 4, 5, 9)**

Targets – Targets are the short-term or proximal attitudes, skills, and beliefs that can serve as an intermediate indicator that your project's strategies are moving towards an expected change in your project's outcomes. Targets are the intermediate domain on a Theory of Change. **(Chapter 4, 5, 9)**

Themes – Common patterns among responses to questions asked during an interview or focus group. **(Chapter 6 Part 3)**

Theory of Change (TOC) – A set of detailed beliefs about specific changes that are proposed to result from a program. The theory of change contains four domains: strategies, targets, outcomes, and forces of change. **(Chapter 4)**

T-Test – An inferential statistic that can be used to test the hypothesis that there is a significant difference between two groups of observations. **(Chapter 6 Part 2)**

Validity – The accuracy of a tool. The principle that measures whether the results of the tool represent what they are expected to measure. **(Chapter 6 Part 1)**

References

Chapter 2: Community Engagement

Part 1: Assessing Community Needs and Resources

1. Community Tool Box. *Developing a Plan for Assessing Local Needs and Resources*. <https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/develop-a-plan/main>
2. Strive Together (2021). *A Guide To: Data Sharing*. https://strivetogether.my.salesforce.com/sfc/p/#4P000000hKdh/a/4P000000LmIY/t8m912cO7ws4Zy3rV KUjiAcf5M0d.7TLmat_lqhGOvI
3. U.S. Census Bureau. *Census Data*. <https://www.census.gov/data.html>
4. National Center for Education Statistics. *Data & Tools*. <https://nces.ed.gov/datatools>
5. Urban Institute. *Education Data Explorer*. <https://educationdata.urban.org/data-explorer>
6. Annie E. Casey Foundation (2023). *2023 Kids Count Data Book Interactive*. <https://www.aecf.org/interactive/databook>
7. University of Wisconsin Population Health Institute (2024). *County Health Rankings & Roadmap*. <https://www.countyhealthrankings.org/>
8. Live Health South Carolina. *Live Healthy South Carolina Data*. <https://livehealthy.sc.gov/data>
9. South Carolina Education Oversight Committee. *For Educators*. dashboardsc.sc.gov
10. SC School Report Cards. *South Carolina's School Report Cards*. <https://screportcards.com/>
11. SC Works Online Services. *Labor Market Information Dashboard*. [https://jobs.scworks.org/vosnet/dashboards/defaultana.aspx?menuid=MENU_START_PAGE_DASHBOARD ANA&qlink=1](https://jobs.scworks.org/vosnet/dashboards/defaultana.aspx?menuid=MENU_START_PAGE_DASHBOARD_ANA&qlink=1)
12. South Carolina Department of Health and Environmental Control (2024). *South Carolina Community Assessment Network*. <https://apps.dhec.sc.gov/Health/scan/scan/index.aspx>
13. South Carolina Department of Social Services. *About DSS*. <https://dss.sc.gov/about/>
14. South Carolina Department of Education. *Data & Reports*. <https://ed.sc.gov/data/>
15. Children's Trust of South Carolina. *Research and Data*. <https://scchildren.org/resources/research-data/>
16. South Carolina Revenue and Fiscal Affairs Office. *Health Utilization Reports*. <https://rfa.sc.gov/data-research/healthcare>
17. University of South Carolina Institute for Families in Society. *SC Health Viz*. <https://www.schealthviz.sc.edu/>
18. David Horsager. *The 8 Pillars of Trust*. <https://davidhorsager.com/the-8-pillars-of-trust-the-leading-indicator/>

Chapter 3: Pathways of Innovation

1. Live Healthy South Carolina (2018). *South Carolina State Health Assessment*. [https://livehealthy.sc.gov/sites/livehealthy/files/Documents/SHA%20chapters/sc sha full report nov.18.pdf](https://livehealthy.sc.gov/sites/livehealthy/files/Documents/SHA%20chapters/sc_sha_full_report_nov.18.pdf)
2. SC Education Oversight Committee (2023). *State-Funded Full-Day 4K Annual Report 2021-22 & 2022-23*. <https://eoc.sc.gov/sites/eoc/files/Documents/4K/State-Funded%20Full-Day%204K%20Report%2C%20%20FY2021-22%262022-23.docx.pdf>

Chapter 4: Theory of Change

1. Center on the Developing Child Harvard University (2024). *Theory of Change*. <https://ideas.developingchild.harvard.edu/theory-of-change/>
2. Community Tool Box. *Developing a Plan for Assessing Local Needs and Resources*. <https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/develop-a-plan/main>

3. Drouin Duncan, A. (2023). *Theory of Change*. Presented at the 2023 Nurturing Developing Minds Conference. <https://www.instituteforchildsuccess.org/resources/resource/theory-of-change/>

Chapter 6: Measurement Matters

Part 1: Measurement Selection and Data Collection

1. Institute for Child Success. *Impact Measures Tool*. <https://www.instituteforchildsuccess.org/our-initiatives/initiative/impact-measures-tool/>
2. Institute for Child Success. "How to Choose a Measure." <https://www.instituteforchildsuccess.org/resources/resource/how-to-choose-a-measure/>

Part 3: Reporting Qualitative Data

1. SurveyMonkey. *Question Types*. <https://help.surveymonkey.com/en/surveymonkey/create/question-types/>

Chapter 7: Formative Evaluation

1. Saunders, R.P. (2016). *Implementation Monitoring and Process Evaluation*. SAGE Publications, Inc. <https://doi.org/10.4135/9781071878736>

Chapter 8: Process Evaluation

1. MacDonald, G. *Criteria for Selection of High-Performing Indicators*. https://wmich.edu/sites/default/files/attachments/u350/2014/Indicator_checklist.pdf

Chapter 9: Outcome Evaluation

1. National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1979). *The Belmont Report*. <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html>

Appendix 1: Participant Satisfaction Survey Template



Participant Satisfaction Survey Template

We want you to share about your experience with (insert program name) in your local community. We invite you to tell us what we are doing well and what we can do better to support your family.

Your responses to this survey will be kept anonymous and confidential. Nothing you say in this survey will affect your ability to receive services now or in the future.

This survey will take approximately (insert number of minutes) to complete.

Thank you for your honest feedback.

* 1. How likely is it that you would recommend **(insert program name)** to **(families with eligible children in your community)**?

| 0 Not Likely at All | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 Extremely Likely |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

2. What is **(insert program name)** good at?

3. What could **(insert program name)** do better?

4. What ideas do you have to improve **(insert program name)** for families in your community?

5. Overall, how well has **(insert program name)** met your needs?

- Extremely well
- Very well
- Fairly well
- A little bit
- Not well at all

6. How often do **(staff at insert program name)** treat you with respect?

- Always
- Usually
- Sometimes
- Rarely
- Never

7. How often do you communicate with **(staff at insert program name)**?

- Once a week
- Once a month
- Once every few months
- Less often than that

8. Please rate your agreement with the following statement.

I trust that **(staff at insert program name)** has my family's best interest in mind.

- Strongly agree
- Disagree
- Agree
- Strongly disagree
- Neither agree nor disagree

9. What motivated you to enroll in **(insert program name)**?

10. What keeps you enrolled in **(insert program name)**?

11. How do you think **(insert program name)** could better support families?

Participant Satisfaction Survey Template

Demographic Questions

The following optional and confidential question(s) help us better understand who we serve so that we can better support you. Please select the option that best fits you or please self-describe in the space provided.

12. Gender: How do you identify?

- Man
 Woman

Please self-describe:

13. How old are you?

- | | |
|---|---|
| <input type="radio"/> 17 years or younger | <input type="radio"/> 45-54 years |
| <input type="radio"/> 18-24 years | <input type="radio"/> 55-64 years |
| <input type="radio"/> 25-34 years | <input type="radio"/> 65-74 years |
| <input type="radio"/> 35-44 years | <input type="radio"/> 75 years or older |

14. Race/Ethnicity: How do you identify? (Check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Asian or Asian American | <input type="checkbox"/> Native American or Alaska Native |
| <input type="checkbox"/> Black or African American | <input type="checkbox"/> Native Hawaiian or other Pacific Islander |
| <input type="checkbox"/> Hispanic or Latino/a/x | <input type="checkbox"/> White |
| <input type="checkbox"/> Middle Eastern or North African | |

Another race or ethnicity, please self-describe:

15. What is your highest level of education completed? (select one)

- High school diploma/GED
 Some college credits
 Two-year degree
 Four-year college degree
 Some graduate credits
 Graduate degree

Appendix 2 – Participant Incentive Guidance

The table below describes each survey administration and associated incentive structure for ‘Your Voice Matters’ feedback loops implemented by South Carolina First Steps. Incentives were purchased either with private, unrestricted funds or state funds (highlighted in gray in the table below).

| Survey Name | Population Targeted | Time to Complete Survey | Incentive Description | Cost per item | Number of Incentives Purchased? | Response Rate | Distribution Method | Notes |
|---|--|-------------------------|--|--|---|---------------|---|---|
| First Steps 4K Family Engagement Survey (Fall 2021) | First Steps 4K families | 5 minutes | Yoto Player – Children’s Audio Player | \$110 | 10* | 14% | Text first, then reminder email (4K Family Connections Newsletter) | 4K Outreach Coordinator helped distribute surveys through text & email Available in English & Spanish |
| First Steps 4K Family Engagement Survey (Spring 2022) | First Steps 4K families | 3 minutes | Board Game | \$25 | 10* | 7% | Email first (4K Family Connections Newsletter), then reminder text | 4K Outreach Coordinator helped distribute surveys through text & email Available in English & Spanish |
| SC Parents as Teachers Family Engagement Survey (Spring 2022) | Families enrolled in PAT across all affiliates in South Carolina | 7 minutes | Family Incentive: Gift basket with baby bath set, baby wipes, diapers Parent Educator Incentive: PAT affiliates who have at least 50% response rate will receive funds for a meal for their PAT staff | Family Incentive: \$30 Parent Educator Incentive: \$15 per PAT staff member | Family Incentive: 10* Parent Educator Incentive: 25 of 38 PAT affiliates received the meal incentive | 53% | Text, email, paper surveys – at discretion of affiliate (some used a combination) | PAT Parent Educators/Supervisors helped distribute the surveys to PAT families 2/3 of families completed the survey using an electronic link Available in English & Spanish |
| First Steps 4K Spring Teacher & Director Survey (Spring 2022) | First Steps 4K Teachers and Directors | 16 minutes | Magna Tiles 28-piece set | \$60 | 10* | 22% | Email | 4K Outreach Coordinator & 4K Coaches helped distribute surveys through email Available in English & Spanish |

| | | | | | | | | |
|--|--|------------|--|------|-----|-----|---|--|
| First Steps 4K Teacher and Director Survey (Fall 2022) | First Steps 4K Teachers and Directors | 16 minutes | Magna Tiles 28-piece set | \$60 | 10* | 18% | Email, Facebook post | 4K Outreach Coordinator & 4K Coaches helped distribute surveys through email Available in English & Spanish |
| First Steps 4K Family Survey (Fall 2022) | First Steps 4K families | 8 minutes | No incentive | N/A | 10* | 6% | Email first (4K Family Connections Newsletter), then reminder text | 4K Outreach Coordinator helped distribute surveys through text & email Available in English & Spanish |
| SC Parents as Teachers Family Survey (Spring 2023) | Families enrolled in PAT across all affiliates in South Carolina | 15 minutes | Gift basket including books, wipes, diapers, and age-appropriate manipulatives | \$30 | 10* | 51% | Text, email, paper surveys – at discretion of affiliate (some used a combination) | PAT Parent Educators/Supervisors helped distribute the surveys to PAT families Available in English & Spanish |
| First Steps 4K Family Survey (Spring 2023) | First Steps 4K families | 5 minutes | Super Big Alphabet puzzle | \$30 | 10* | 4% | Email first (4K Family Connections Newsletter), then reminder text | 4K Outreach Coordinator helped distribute surveys through text & email Available in English & Spanish |
| *For the incentives – participants were told in the survey introduction that they would have the opportunity to enter a drawing to win 1 of 10 prizes. At the end of the survey, individuals who wanted to opt in for the drawing were instructed to enter their contact information (i.e., name, email, and phone number). Prizes were mailed via FedEx shipping. | | | | | | | | |

Appendix 3 - Action Planning Sheet

The purpose of this sheet is to develop an implementation plan for your second implementation cycle. Use this sheet to record the specific program strategies your team plans to make in the second implementation cycle (i.e., What will I do?), the deadline for accomplishing each strategy (i.e., When will it be done?), and the necessary action steps required to implement these changes by the deadline you have set (i.e., How will it be done?). An example is provided below for your reference.

| | Month 1: February | Month 2: March | Month 3: April | Month 4: May | Month 5: June |
|---|--|---|---|--|--|
| Outcome (Goal) #1 Sell 400 pizzas/month | What will I do? -Food safety permit renewal (inspection) - Hire staff (kitchen + cashier) | What will I do? - Purchase ingredients (2-month supply) -Purchase packaging (2-month supply) - Purchase new kitchen supplies - Hire staff (kitchen + cashier) | What will I do? - Train staff - Sell pizzas | What will I do? - Sell pizzas - Purchase ingredients (2-month supply) -Purchase packaging (2-month supply) | What will I do? - Sell pizzas |
| | When will it be done? <u>Inspection:</u> Feb. 21 st . <u>Hire Staff:</u> Feb: 26 th . | When will it be done? <u>Purchase Ingredients:</u> March 15 <u>Purchase Packaging:</u> March 15 <u>Purchase Supplies:</u> March 15 <u>Hire Staff:</u> March 1-15 | When will it be done? <u>Train staff:</u> Entire month <u>Sell pizzas:</u> Entire month | When will it be done? <u>Sell pizzas:</u> Entire month <u>Purchase Ingredients:</u> May 15 <u>Purchase Packaging:</u> May 15 | When will it be done? <u>Sell pizzas:</u> Entire month |
| | How will it be done? <u>Inspection:</u> Receive updated safety permit after inspection. <u>Hire Staff:</u> Recruit candidates via online university job platform. | How will it be done? <u>Purchase Ingredients:</u> Bulk purchase from wholesale retailer. <u>Purchase Packaging:</u> Bulk purchase from wholesale retailer. <u>Purchase Supplies:</u> Bulk purchase from wholesale retailer. <u>Hire Staff:</u> Conduct interviews and finalize hire. | How will it be done? <u>Train staff:</u> Senior team members will provide on-site training after new employee orientation. <u>Sell pizzas:</u> Prepare and sell pizzas based on customer orders. | How will it be done? <u>Sell pizzas:</u> Prepare and sell pizzas based on customer orders. <u>Purchase Ingredients:</u> Bulk purchase from wholesale retailer. <u>Purchase Packaging:</u> Bulk purchase from wholesale retailer. | How will it be done? <u>Sell pizzas:</u> Prepare and sell pizzas based on customer orders. |

| | Month 1: | Month 2: | Month 3: | Month 4: | Month 5: |
|--|--|--|--|--|--|
| Outcome (Goal) #1 (Identify an outcome that you hope to achieve by the end of implementation cycle 2.) | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. |
| | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. |
| | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. |

| | Month 1: | Month 2: | Month 3: | Month 4: | Month 5: |
|--|--|--|--|--|--|
| Outcome (Goal) #2 (Identify an outcome that you hope to achieve by the end of implementation cycle 2.) | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. |
| | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. |
| | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. |

| | Month 1: | Month 2: | Month 3: | Month 4: | Month 5: | |
|--|--|--|--|--|--|--|
| Outcome (Goal) #3 (Identify an outcome that you hope to achieve by the end of implementation cycle 2.) | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. cycle | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | What will I do? - Write a description of the program strategy you will implement during the second implementation cycle to accomplish this goal. | |
| | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. | When will it be done? - Identify a deadline for when you will have the task completed. You should identify a deadline for each strategy you identified in the row above. |
| | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. | How will it be done? - Write a list of any action steps that will need to be taken in order to achieve the program strategy you identified by the deadline you set. |

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