## Lesson Plan: Identify Gaps and Trends in the

**1 hr 40 min minimum**

## Information

Lesson Description

In this lesson, participants learn how to analyze and interpret the information they collected.

***Note: This lesson works best if participants and facilitator use computers for the activity “Practicing Analyzing and Interpreting Information”. If computers aren’t available, flip chart paper can be used instead. The lesson can also be modified to suit the level of experience of the participants.***



Learning Outcomes



At the end of this session participants will be able to:

1. Explain the differences between quantitative and qualitative information.
2. Describe processes that can be used to analyze and interpret quantitative data and qualitative data.
3. Analyze and interpret information quantitative and qualitative data.



Materials



* Flip chart paper
* Markers
* Tape
* Large Diagram of the ADDIE model – introduced in the lesson on instructional design
* CEWT Workbook – 1 per participant
* Theme music and speakers
* CEWT Hats
* Computers
* Projector
* Microsoft Excel file: L13 - Information to Analyze and Interpret\_empty
* Optional: Participants’ Nametags created using the template in the workshop introduction

Preparation



* Write the following definitions on a flip chart paper:
  + ***Quantitative information*** *can be readily ‘counted’, such as a number, percentage, rate, or ratio.*
  + ***Qualitative information*** *cannot be readily ‘counted’. It measures people’s judgements, opinions, and attitudes.*
* Prepare two examples of how to analyze the data collected by the participants. One for qualitative data, and another for quantitative data. Consider using the data analysis spreadsheet provided in the trainer manual for ideas on how to do the data analysis: Microsoft Excel files: L13 - Information to Analyze and Interpret\_empty.
* Write the following examples of information types on sticky notes, using one note for each example. Do not show whether it is a qualitative or quantitative example on the note. Make enough notes so that there is one for each participant, and choose a mix of qualitative and quantitative examples. **If possible, update these examples to reflect the information collected by the participants.**

Qualitative examples:

* + *Descriptions of problems that households have using a household water treatment technology.*
  + *Comments on how confident Community WASH Promoters feel teaching about household water treatment technologies.*
  + *Descriptions of what households learn from Community WASH Promoters*
  + *Comments on things Community WASH Promoters would like to learn more about*
  + *Descriptions of challenges that Community WASH Promoters have when working with households*

Quantitative examples:

* + *Number of Community WASH Promoters that can remember all 5 stages of the multi barrier approach to HWTS*
  + *Average rating given by Community WASH Promoters of prior training they have received.*
  + *Percentage of Community WASH Promoters that are available to attend training on the weekends.*
  + *Percentage of Community WASH Promoters that feel “moderately” or “highly” confident to teach WASH topics*
  + *Number of Community WASH Promoters that could remember the critical times for handwashing*
* Update L13 - Information to Analyze and Interpret\_empty with templates that are relevant to the information that you collected.
* Ask participants to bring a laptop to this lesson
* Set up a computer and projector with the qualitative and quantitative information that you analyzed using the excel spreadsheet.
* Optional: Write the learning outcomes on flip chart paper

Introduction 5 minutes



1. Ask participants: “Now that we have collected information, how can we analyze it?” Record their answers.
2. Explain that in this lesson we will be learning how to analyze qualitative and quantitative information.
3. Present the learning outcomes or lesson description.

A Process for Analyzing and Interpreting Information 10 minutes



1. Present the flip chart paper with the definitions for quantitative and qualitative information.
2. Hand out one post-it with a type of information written on it to each participant, and explain that you’d like them to read the post-it note, decide whether it is an example of quantitative, or qualitative information, and then stick their post-it note next to the definition that they think it corresponds to.
3. In the large group, review where each example information type was placed, and discuss why each is quantitative or qualitative.
4. Explain that we need to analyze and interpret the information we collected before we can update our participant profile, goal and Theory of Change accordingly.
5. Explain that the methods for analysis are different if the information is quantitative or qualitative.

A Process for Analyzing and Interpreting Information 15 minutes



1. Explain that we are going to use three steps for analyzing the information that we have collected. The process is the same, regardless of whether the data is qualitative or quantitative, but the details of each step are different.
2. Present the three steps with a brief explanation:
   1. Organize the information
   2. Develop graphs and statics to help you see patterns in the information
   3. Interpret what the graphs and statistics mean.
3. Share the examples you created for how to analyze the qualitative and quantitative information collected by the participants.

Optional: Using Microsoft Excel for the Analysis 10 minutes 

1. Present the Excel Sheets you used to create the qualitative and quantitative examples.
2. Show the group how you used the spreadsheet to create graphs.
3. Explain that we can use a spreadsheet like this to complete all of the analysis for the information that they collected. Explain that Microsoft Excel is not the only way to complete the analysis, but it is useful and straightforward.

***Note: If you do not have a computer and projector available, skip this activity.***

Analyzing the information 1 or more hours



1. Explain to participants that they are going to analyze and interpret the information they collected. One group will analyze the qualitative information. Another group will analyze the quantitative information. If possible, place someone with experience in data analysis in each of the groups.

**Note: If you have many participants, you can divide the information collected amongst multiple groups.**

1. Provide the participants with the Microsoft Excel file: L13 - Information to Analyze and Interpret\_empty for examples on how they can analyze their information.
2. After the participants have analyzed the information ask them to summarize for the full group:

* Their findings
* The process they used to analyze and interpret the information

Developing Overall Recommendations 1 hour



1. Explain that now that we have done the analysis of the information we were assigned we need to look for general trends and gaps. These findings may influence the way we have done our target participant profile, goal and Theory of Change.
2. Explain that our review of the information should include:
   1. Linking findings for different questions to see overall trends
   2. Identifying gaps or contradictions in the findings. More research might be needed to resolve these gaps.
   3. Using the overall findings to decide what to change or add to our target participant profile, goal and Theory of Change.
3. Review all the information as a group, and make the necessary updates to the target participant profile, goal and Theory of Change.

Review 5 minutes



1. Turn on the theme music for the workshop and ask participants to put on their “CEWT Hat”.
2. Ask participants “What stage within the ADDIE model were we working on?” *Analyze.*
3. Ask participants “What step in collecting information did we just complete?” *Analyze the information.*
4. In their CEWT Workbooks, in the section titled Analyze, and the subsection, collecting information, ask participants to answer the following question:

What information did you adjust in the target participant profile, goal or Theory of Change based on the information you collected.

Reflections on Lesson