The Education Logic Model (ELM) Application

User Guide

This document contains text found in the Education Logic Model application.

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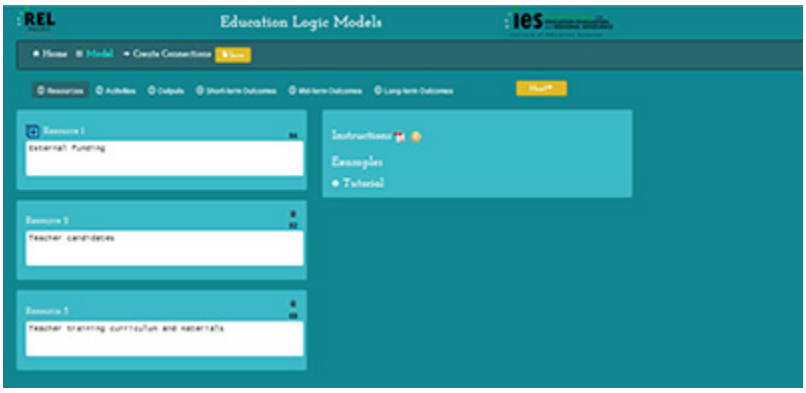
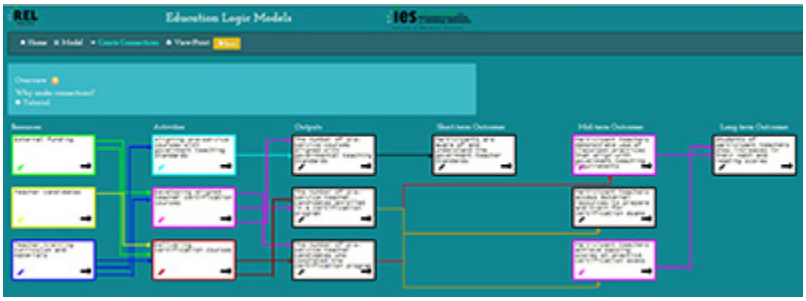
What is the ELM Application?

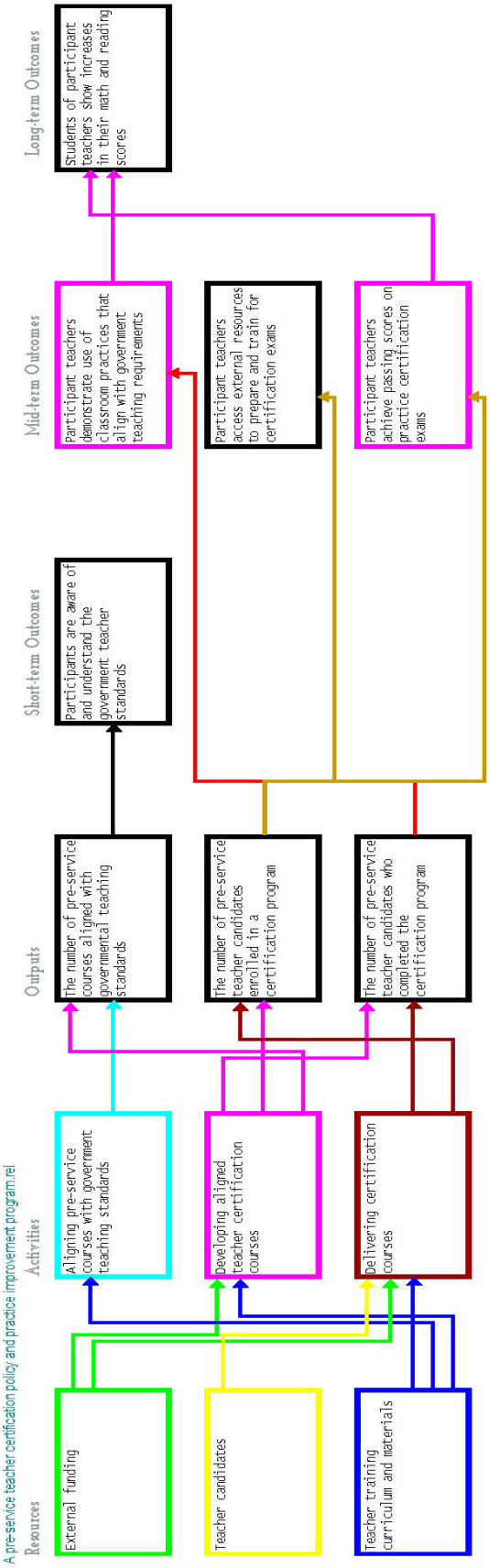
The ELM Application is a downloadable computer app that runs locally on Google Chrome and does not require you to connect to the internet. The program will guide you through a series of questions and give you opportunities to enter your program resources, activities, outputs, and outcomes.



Once all of your program information is entered, you will be prompted to draw color-coded lines between each component, illustrating their cause-and-effect relationships.



The end result is a printable logic model like the one you see on the following page. This model functions as a map for you and your team, visually connecting intended activities with intended outputs and outcomes.


A pre-service teacher certification policy and practice improvement program.rel
Resources
Activities
Outputs
Short-term Outcomes
Mid-term Outcomes
Long-term Outcomes
External funding
Teacher candidates
Teacher training curriculum and materials
Aligning pre-service courses with government teaching standards
Developing aligned teacher certification courses
Delivering certification courses
The number of pre-service courses aligned with governmental teaching standards
The number of pre-service teacher candidates enrolled in a certification program
The number of pre-service teacher candidates who completed the certification program
Participants are aware of and understand the government teacher standards
Participant teachers demonstrate use of classroom practices that align with government teaching requirements
Participant teachers access external resources to prepare and train for certification exams
Participant teachers achieve passing scores on practice certification exams
Students of participant teachers show increases in their math and reading scores

Why create a logic model of your education program?

Logic models are an invaluable tool for teachers, administrators, policy makers, and evaluators to visually represent the structure, process, and goals of a program, both conceptual and actionable.

Logic models can contribute to the success of your program in the following ways:

- making the intention behind your program clear;
- introducing common language and references for collaborators in your program;
- defining resources and outlining activities, as in an action plan;
- showing quantitative outputs as well as short-, mid-, or long-term effects;
- using a visual display as a proven and effective learning tool;
- illustrating the *process* of your program, speaking to its value beyond the measureable effects; and
- using theories of change to guide the planning process, making lessons learned more evident in the evaluation stage.

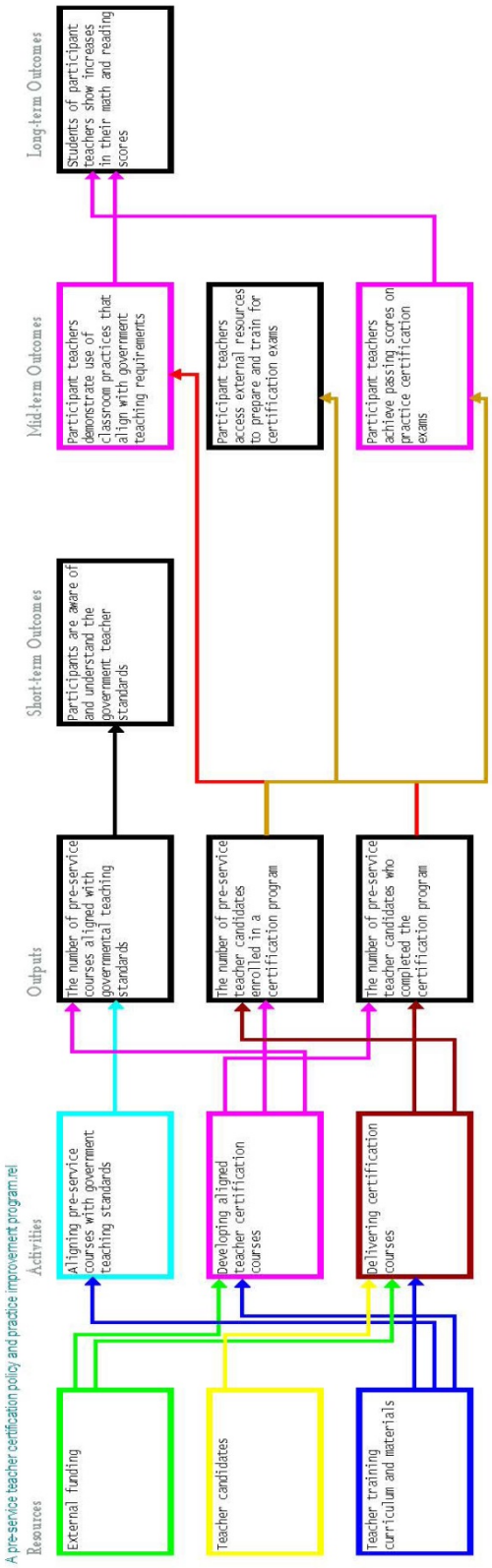
Quick Reference Guides:

To provide more information on logic models, REL Pacific has created a series of hard-copy quick reference guides:

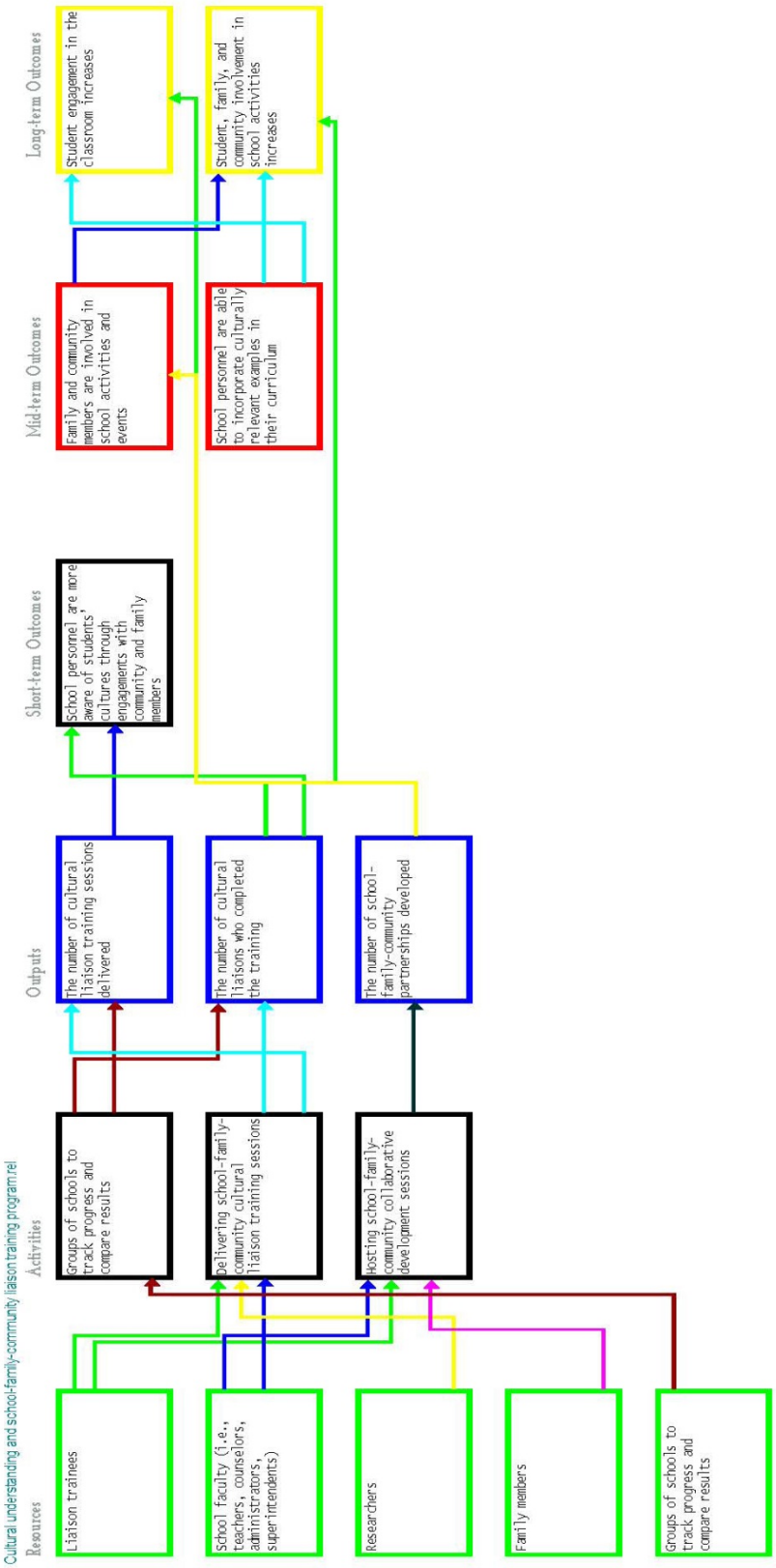
http://ies.ed.gov/ncee/edlabs/regions/pacific/pdf/REL_2014025.pdf
http://ies.ed.gov/ncee/edlabs/regions/pacific/pdf/REL_2014007.pdf.

Examples of logic models created using this application:

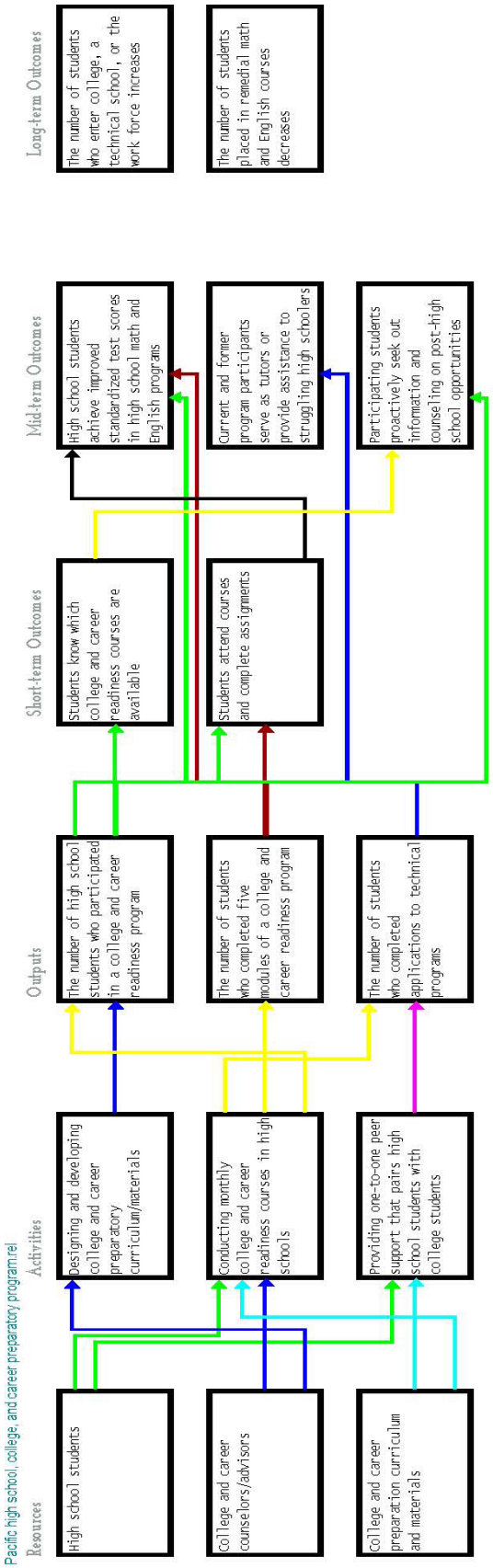
- Example 1: A pre-service teacher certification policy and practice improvement program



- Example 2: Cultural understanding and school-family-community liaison training program



- Example 3: Pacific high school, college, and career preparatory program



Instructions for downloading and installing the application from the REL Pacific website (relpacific.mcrel.org):

Please visit **https://ies.ed.gov/ncee/edlabs/regions/pacific/elm.asp** for instructions on downloading and installing the ELM application.

Instructions for downloading and installing the application from a flash drive

Downloading from a flash drive for PC

Step 1: Please close any internet browsers before beginning.

Step 2: Drag the "ELM for PC (v#.#).exe" file from the USB stick to your desktop. Double click on it to begin installation. This will automatically install Chrome and the ELM application to your computer. (A pop up window may appear that says "This program might not have installed correctly." Please click "This program installed correctly.")

Step 3: An ELM icon will appear on your desktop. Click on it to begin using the application.

Downloading from a flash drive for MAC

Step 1: Please close any internet browsers before beginning.

Step 2: Drag the "ELM for MAC (v#.#).pkg" file from the USB stick to your desktop.

Step 3: Select the file (one click on the file name).

Step 4: Hold the CONTROL key down and click on the file name again.

Step 5: Select "Open."

Step 6: You will see a warning message "------ is from an unidentified developer. Are you sure you want to open it?" Select "Open."

Step 7: An ELM icon will appear on your desktop. Click on it to begin using the application.

Application specifications

- iMac or PC compatible: the apps have been tested against Windows 7, Windows 8, OS X 10.8, and OS X 10.9.Internet connection not required
- Provided with Google Chrome browser
- Available on USB device or zip file
- All information is stored on your local computer
- Data can be easily shared from the ELM app by generating a PDF in the print options window; if you are working in the POMT app, you may generate a PDF, Word, or Excel report to share. You may also share your "rel" file with users who have already downloaded the ELM or POMT applications.
- Provides users with "Quick Reference Guides," documents describing logic models and program monitoring in greater depth.
- Contains step-by-step instructions

Technical support & feedback

Thank you for being an early user of this application! As with any new application, there may be some remaining bugs to work out. If you require assistance with the application, please **email us at relpacific<at>mcrel.org.**

We will be adding FAQs to our website on technical assistance and troubleshooting tips soon.

We also appreciate hearing your feedback on the application and welcome emails to the same email address: **relpacific<at>mcrel.org**. Please type "ELM Feedback" in the subject line.

Navigating the application

The logic model is broken down into six sections: resources, activities, outputs, and short-, mid-, and long-term outcomes. You may enter information for each section in any order you like, and you have the freedom to access those sections again at any time during, and after, the creation of your logic model. Tools are available to group and color-code information, if needed. You are also able to save, retrieve, and print logic model files ("rel" files) with ease. The following sections provide more in-depth guidance when navigating the ELM application.

Entering Resources

Instructions

Please enter your resource information in the boxes. You can use up to five boxes for your information and there is a limit of 110 characters per box. Please think of short phrases or words to describe your program's resources.

Click on the plus sign in the upper left corner of the first box to add additional boxes below. Click on the trash can icon at the top right corner of the added boxes to delete. Please note the identifying numbers of the boxes will not renumber if you choose to delete a box after creating it.

Press **Next** when completed. To finish and save your project, go to Create Connections and then press Save. **Don't forget to save your work regularly by using the Save button located at the top of the menu bar.**

Overview

Resources, or inputs, are the raw materials available to create the program and attain the desired outputs and impacts. In most cases, resources available to a program include both material items, such as the curriculum, instructional materials, facilities, and funding, and non-material items, such as time, community support, or individuals with specialized knowledge or skills.

Although resources are considered the first step in a logic model, they may not be known until you understand what your outcomes and activities will be, or they might be largely based upon the evaluation questions you intend to answer.

As you enter your information about the program's resources consider the following questions:

- Who are the stakeholders (e.g., administrators or managers, staff or faculty, volunteers, program funders, program beneficiaries, or other groups) involved in the program?
- How much time do participants need to invest in the program?
- How much money is needed to implement the program's activities?
- What kinds of facilities are needed to effectively implement the program?
- What materials and equipment are needed to effectively implement the program?
- Is there any special technology that is needed to effectively implement the program?

Examples

The following are examples of resources you might enter based on the type of program:

Program 1: A pre-service teacher certification policy and practice improvement program

- External funding
- Teacher candidates
- Teacher training curriculum and materials

Program 2: Cultural understanding and school-family-community liaison training program

- Liaison trainees
- School faculty (i.e., teachers, counselors, administrators, superintendents)
- Researchers
- Family members
- Groups of schools to track progress and compare results

Program 3: Pacific high school, college, and career preparatory program

- High school students
- College and career counselors/advisors
- College and career preparation curriculum and materials

Entering Activities

Instructions

Please enter your resource information in the boxes. You can use up to five boxes for your information and there is a limit of 110 characters per box. Please think of short phrases or words to describe your program's activities.

Click on the plus sign in the upper left corner of the first box to add additional boxes below. Click on the trash can icon at the top right corner of the added boxes to delete. Please note the identifying numbers of the boxes will not renumber if you choose to delete a box after creating it.

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Overview

Activities are the approaches and components of a program that use the resources to attain the desired outcomes or impact of a program. A list of the program's activities depicts how a program works and what approaches will lead to the desired outcomes. The activities might include processes, events, projects, or other actions. For example, a teacher professional development workshop might be one activity that is intended to increase teacher content knowledge.

As you enter your information about the program's activities consider the following questions:

- What do you want the program to do?
- What workshops, courses, classes, or other training will the program use to achieve the desired outcomes?
- Will you have meetings to determine the extent to which the program is meeting desired benchmarks?
- What data collection methods will you use to measure the extent to which desired outcomes are being met?
- Will you be developing any materials or other products for the program?

Examples

The following are examples of the kinds of activities information you might enter based on the type of program:

Program 1: A pre-service teacher certification policy and practice improvement program

- Aligning pre-service courses with government teaching standards

- Developing aligned teacher certification courses
- Delivering certification courses

Program 2: Cultural understanding and school-family-community liaison training program

- Designing and developing a research-based Cultural Liaison Training Program
- Delivering school-family-community cultural liaison training sessions
- Hosting school-family-community collaborative development sessions

Program 3: Pacific high school, college, and career preparatory program

- Designing and developing college and career preparatory curriculum/materials
- Conducting monthly college and career readiness courses in high schools
- Providing one-to-one peer support that pairs high school students with college students

Entering Outputs

Instructions

Please enter your resource information in the boxes. You can use up to five boxes for your information, and there is a limit of 110 characters per box. Please think of short phrases or words to describe your program's outputs.

Click on the plus sign in the upper left corner of the first box to add additional boxes below. Click on the trash can icon at the top right corner of the added boxes to delete. Please note the identifying numbers of the boxes will not renumber if you choose to delete a box after creating it.

Press **Next** when completed. To finish and save your project, go to Create Connections and then press Save. **Don't forget to save your work regularly.**

Overview

Outputs are tangible and often process-oriented results or products. Outputs are typically expressed as numbers, such as the number of students tested, teachers trained, or books read. While outputs provide information resulting from the completion of program activities, they do not indicate if a change has occurred. For example, an output can tell you how many teachers attended a training, but does not tell you if the training led to a change in teachers' knowledge of the training topic.

It is important to make the distinction between the terms *outputs* and *outcomes*. Other terms used for similar depictions of how activities and outcomes are related include an intervention's *theory of change*, *logframe*, or *logical framework*. While outputs are tangible products, outcomes refer to short-, mid-, and long-term impacts of a program, as well as overall changes in knowledge, beliefs, and behaviors that may occur due to involvement in a program.

As you enter your information about the program's outputs, consider the following questions:

- How many people will participate in the program?
- How many products or materials will be produced?
- How many activities will be provided?
- How many observable service(s) and product(s) can we expect as results from these activities?
- What types of workshops or trainings will be provided?

- Do my outputs reflect the intended participants, products, and activities that can assist program managers in determining whether activities have been delivered with fidelity (i.e., true to the program's plan)?
- Have I confused my outputs with changes in attitudes, knowledge, skills, beliefs, or behaviors, which are typically outcomes?

Examples

The following are examples of the kinds of output information you might enter based on the type of program:

Program 1: A pre-service teacher certification policy and practice improvement program

- The number of pre-service courses aligned with governmental teaching standards
- The number of pre-service teacher candidates enrolled in a certification program
- The number of pre-service teacher candidates who completed the certification program

Program 2: Cultural understanding and school-family-community liaison training program

- The number of cultural liaison training sessions delivered
- The number of cultural liaisons who completed the training
- The number of school-family-community partnerships developed

Program 3: Pacific high school, college, and career preparatory program

- The number of high school students who participated in a college and career readiness program
- The number of students who completed five modules of a college and career readiness program
- The number of students who completed applications to technical programs

Entering Short-term Outcomes

Instructions

Please enter your resource information in the boxes. You can use up to five boxes for your information and there is a limit of 110 characters per box. Please think of short phrases or words to describe your program's outcomes.

Click on the plus sign in the upper left corner of the first box to add additional boxes below. Click on the trash can icon at the top right corner of the added boxes to delete. Please note the identifying numbers of the boxes will not renumber if you choose to delete a box after creating it.

Press **Next** when completed. To finish and save your project, go to Create Connections and then press Save. **Don't forget to save your work regularly.**

Overview

In general, program outcomes are the changes in knowledge, beliefs, and behaviors that occur due to involvement in the program, or perhaps relatively quick adjustments made in organizational practices or system design (to learn more about the differences between outcomes and outputs, please read the Overview on the Outputs page). Some short-term outcomes can be observed almost immediately after program activities. For example, after a workshop on school and family collaboration, an immediate short-term outcome could be a positive change in a person's original perceptions of the importance of these types of partnerships. These outcomes are typically changes in program participants' knowledge, attitudes, or skills, and could occur within one to two years of the program's implementation.

As you enter you information about the program's short-term outcomes, consider the following questions:

- What do you want to have happen in the first two years of the program that will affect participants?
- What effects will the program have in the first two years of implementation?

Examples

The following are examples of short-term outcomes you might enter based on the type of program:

Program 1: A pre-service teacher certification policy and practice improvement program

- Participants are aware of and understand the government teacher standards

Program 2: Cultural understanding and school-family-community liaison training program

- School personnel are more aware of students' cultures through engagements with community and family members

Program 3: Pacific high school, college, and career preparatory program

- Students know which college and career readiness courses are available
- Students attend courses and complete assignments

Entering Mid-term Outcomes

Instructions

Please enter your resource information in the boxes. You can use up to five boxes for your information and there is a limit of 110 characters per box. Please think of short phrases or words to describe your program's outcomes.

Click on the plus sign in the upper left corner of the first box to add additional boxes below. Click on the trash can icon at the top right corner of the added boxes to delete. Please note the identifying numbers of the boxes will not renumber if you choose to delete a box after creating it.

Press **Next** when completed. To finish and save your project, go to Create Connections and then press Save. **Don't forget to save your work regularly.**

Overview

Mid-term outcomes are typically changes in participants' behavior resulting from a program and often take many months or even a few years to emerge. These outcomes typically build toward the eventual long-term outcomes or impact of the program. It is important to note that not all programs will necessarily involve short-term and mid-term outcomes. The mix of outcomes expected will, of course, depend on the goals established for the program – which may only be short-term changes.

As you enter your information about the program's activities, consider the following questions:

- What changes in behavior among participants will the program inspire in the first three to four years of implementation?
- What are the logical changes that participants are intended to experience after the acquisition of new attitudes, knowledge, and skills in the program?

Examples

The following are examples of mid-term outcomes you might enter based on the type of program:

Program 1: A pre-service teacher certification policy and practice improvement program

- Participant teachers demonstrate use of classroom practices that align with government teaching requirements
- Participant teachers access external resources to prepare and train for certification exams
- Participant teachers achieve passing scores on practice certification exams

Program 2: Cultural understanding and school-family-community liaison training program

- Family and community members are involved in school activities and events
- School personnel are able to incorporate culturally relevant examples in their curriculum

Program 3: Pacific high school, college, and career preparatory program

- High school students achieve improved standardized test scores in high school math and English programs
- Current and former program participants serve as tutors or provide assistance to struggling high school students
- Participating students proactively seek out information and counseling on post-high school opportunities

Entering Long-term Outcomes

Instructions

Please enter your resource information in the boxes. You can use up to five boxes for your information and there is a limit of 110 characters per box. Please think of short phrases or words to describe your program's outcomes.

Click on the plus sign in the upper left corner of the first box to add additional boxes below. Click on the trash can icon at the top right corner of the added boxes to delete. Please note the identifying numbers of the boxes will not renumber if you choose to delete a box after creating it.

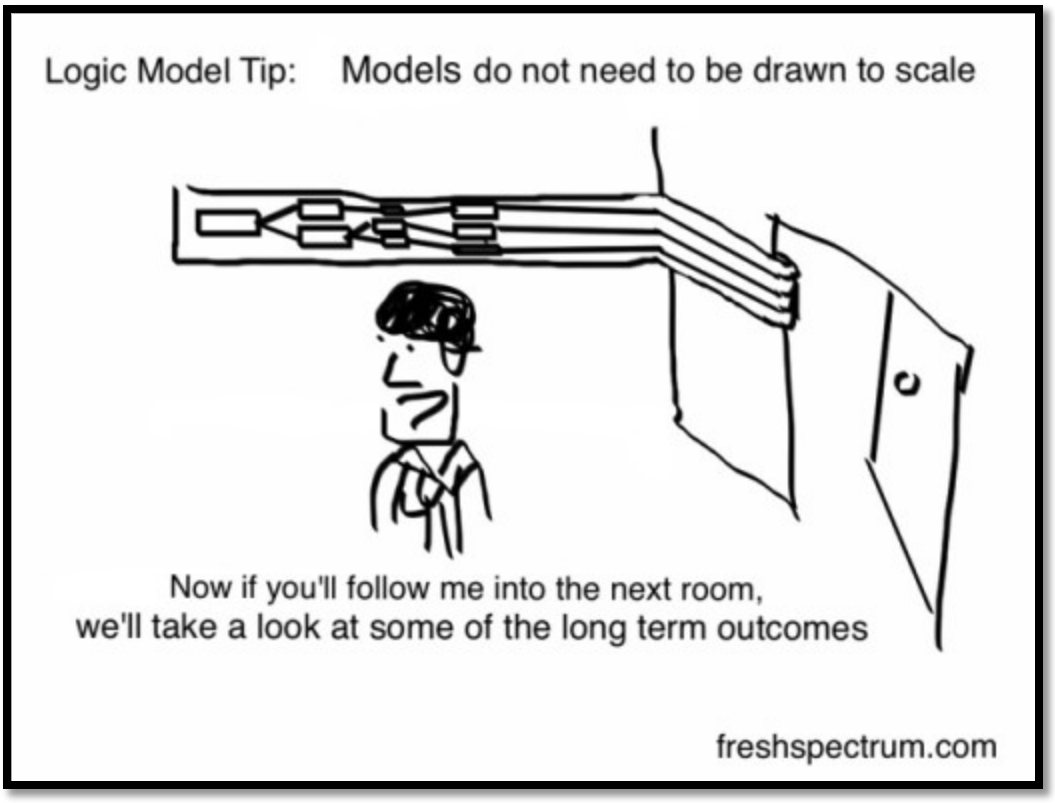
Press **Next** when completed. To finish and save your project, go to Create Connections and then press Save. **Don't forget to save your work regularly.**

Overview

Long-term outcomes are considered the overall enduring influences of the program and are sometimes referred to as *impact*s. These are typically long-lasting student outcomes that, similar to short- and mid-term outcomes, show changes in knowledge, beliefs, or behavior. For example, long-term outcomes may be higher student achievement scores, an increase in high school graduation rates, or greater college acceptance rates.

As you enter your information about the program's long-term outcomes consider the following questions:

- How might student knowledge or achievement be impacted as a result of the program?
- How might student beliefs be impacted as a result of the program?
- How might student behavior be impacted as a result of the program?



Examples

The following are examples of long-term outcomes you might enter based on the type of program:

Program 1: A pre-service teacher certification policy and practice improvement program

- Students of participant teachers show increases in their math and reading scores

Program 2: Cultural understanding and school-family-community liaison training program

- Student engagement in the classroom increases
- Student, family, and community involvement in school activities increases

Program 3: Pacific high school, college, and career preparatory program

- The number of students who enter college, a technical school, or the work force increases
- The number of students placed in remedial math and English courses decreases

Color Coding and Connections

Changing the color of the box

1. Click on the crayon within the box to choose its color. There are nine colors to choose from.

Creating connections

Drawing arrows between boxes in the same column or across columns

1. Choose the color of your arrow by clicking on the arrow icon in the first box until you find the color you want to use.

2. Once you have selected the color, click in the middle of the first box to select it. You will know when your box is selected if the box area turns gray.
3. Click on the second box where you want the arrow to point. This box may be in any column.
4. An arrow should appear, in the color of your choice, going from the first to the second box.

Highlighting boxes within the same column

1. Hold the "Shift" key and select the first box.
2. Hold the "Shift" key and select the second box. Both boxes should be highlighted in green.
3. The boxes must be bordering one another to be highlighted together. The highlight will appear in green.

Removing connections

Arrows

1. Click on the box where the arrow originates.
2. Click on the box to which the arrow points.

Green highlighting

1. Hold the "Shift" key down.
2. Click on the first box.
3. Click on the second box.

Saving your logic model file

You may save your logic model, whether it is complete or not, anywhere you like on your computer or a separate drive. The ELM app automatically creates a folder in your C Drive called, "ELM & POMT Programs" for saving files.

When you are ready to save, click the yellow "Save" button in the main menu bar. The file type is "rel", and you will be able to name your file before you save it.

Retrieving your logic model file

To retrieve a saved logic model file, click "Existing Model" in the menu bar. Find your "rel" file and open it to resume work.

Printing your logic model

You may print your logic model from the "Create Connections" section.

Clicking the "Next" button will advance you to the "Create Connections" section.

Click "View/Print" in the main menu bar at the top of the page to view your document.

If you would like to print the document, press the yellow "Print/PDF" button in the main menu bar.

In the print window, you will have an opportunity to reset the printing options, including page alignment. The document will print as a PDF

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