



The 5 steps to evaluate STEM gender equity programs

STEM gender equity programs seek to address the underrepresentation of girls and women in STEM. By evaluating programs, we can understand if our actions are working to create positive change.

Here are 5 steps for evaluating whether your STEM gender equity program is effective:

Define

Define your program's target problem, audiences and goals. Clearly identify what you want to achieve, why and for whom.

Plan

Plan the program activities and evaluation so that they align with the audiences and the goals you previously defined.

Design

Design your program evaluation to determine how you will measure success based on your plan from the previous step.

Execute

Execute your plan, analyse the collected data and evaluate the success of your program.

Share

Share your findings publicly so that people can know if the program was effective and can work to improve future programs.

DEFINE

Set the stage for the program and its evaluation by defining the problem, audiences and goals.

THE PROBLEM



WHAT IS THE PROBLEM THAT YOUR PROGRAM ADDRESSES?

There are many different issues that contribute to the underrepresentation of girls and women in STEM, including stereotypes, bias and workplace culture.

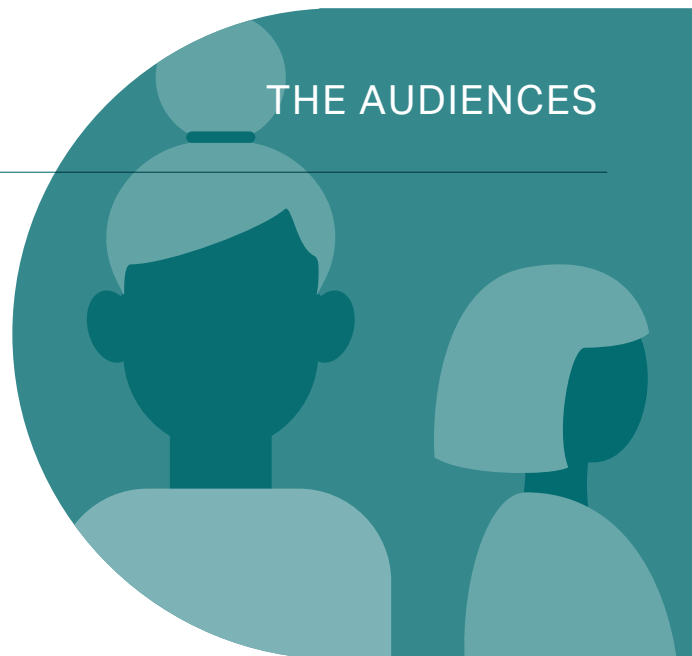
WHO ARE THE PROGRAM AND EVALUATION FOR?

Consider the problem you want to address and identify who is involved and who is interested in the results. There are typically two audiences:

PROGRAM: The people participating in your program, such as women working in STEM, young girls, teachers, STEM organisations, parents and carers.

EVALUATION: The people interested in the evaluation findings, such as your organisation, program partners, funders and government. Defining this audience helps you prioritise who you share evaluations with and what information to highlight.

THE AUDIENCES



WHAT DO YOU WANT TO ACHIEVE?

Define the changes you want the program to produce as specific and targeted outcomes or impacts.

OUTCOMES: What short- to medium-term changes do you want to see?

IMPACTS: What long-term changes do you want to see?

THE GOALS



PLAN

Plan the different elements of your program. This is the most important step in the program and evaluation process.

ACTIVITIES

WHAT WILL YOU DO TO ACHIEVE YOUR GOAL?

An activity is a thing that a person or group does to reach a specific goal.

Always remember the audience and goals that you have already defined. Then choose the program activities that are likely to elicit the outcomes (and eventual impact) you want to achieve.

As you determine your program activities, consider:

➔ INPUTS ←

WHAT IS NEEDED?

Identify the resources your program needs such as time, human, financial and material.

← OUTPUTS ➔

WHAT IS DELIVERED?

Outline the direct services, events, products and deliverables that your program will generate.

EVALUATION PRIORITIES

HOW WILL YOU MEASURE WHAT IS ACHIEVED?

Identify the purpose of the evaluation and what is most important. You can't evaluate every aspect of your program, so only choose three priorities that you want to understand the most. Identify the key questions that you want the evaluation to answer based on your priorities.

Determine the indicators for each of the key questions you identified in the previous step.

'Indicators' are markers that demonstrate if, and what, change is happening.

INDICATORS

DESIGN

Building on the previous planning you have done, it's time to use the information you gained from aligning your audiences, goals, activities and priorities to design your evaluation.

EVALUATION APPROACH

WHICH EVALUATION APPROACH WILL YOU CHOOSE?

The four common approaches to evaluation are:

- ▶ **POSTTEST:** Collect data after the program.
- ▶ **PRETEST/POSTTEST:** Collect data before and after the program.
- ▶ **TIME SERIES:** Collect data over regular intervals of time.
- ▶ **RETROSPECTIVE PRETEST/POSTTEST:** Collect data retrospectively (pretest) and also after the program (posttest).

WHAT DATA COLLECTION METHOD WILL YOU USE?

There are three main methods to collect and analyse data:

- ▶ **QUANTITATIVE:** Uses numerical data that can be analysed using statistics.
- ▶ **QUALITATIVE:** Uses data in the form of text, images, audio and video recordings.
- ▶ **MIXED:** Uses both quantitative and qualitative data collection methods.

DATA COLLECTION

INSTRUMENT

WHAT INSTRUMENT WILL YOU USE?

Develop the data collection tool you will use. Use an existing instrument to collect data. If you must, you can modify one or create your own. Test the instrument and your method to make sure it works as planned and measures what it is intended to.

WHERE AND HOW WILL YOU MANAGE YOUR DATA?

You must have a robust data management plan that outlines how you will collect, store and safeguard your data and protect your participants. Consult the [Australian Privacy Act](#).

SAFEGUARD

EXECUTE

With your program and evaluation already planned and designed, it's time to put it into action.

RECRUIT PARTICIPANTS



WHO WILL PARTICIPATE IN YOUR EVALUATION?

Think about how you will invite people to take part in your evaluation. You can send them an email, put an ad on social media or ask them over the phone.

Always ensure you **get consent** from the participants.

HOW WILL YOU GATHER AND RECORD THE INFORMATION?

Make sure to keep good records and document the information carefully and accurately. Record the dates, time and locations of any interviews or notes. Detail problems that arise or any changes to the procedures.

COLLECT THE DATA



ANALYSE



HOW WILL YOU EXAMINE, SUMMARISE AND EXPLAIN THE DATA?

Summarising and analysing data helps you interpret information and give it meaning.

- ▶ **QUANTITATIVE DATA:** Analyse the data using statistics and display the results as tables, charts and graphs.
- ▶ **QUALITATIVE DATA:** Analyse the data using word clouds, sentiment analysis or by tagging data into categories.
- ▶ **MIXED METHOD:** Apply the analysis for both types of data and compare the results.

SHARE

The final step in the evaluation process is to share your findings publicly and with your funders, partners and other stakeholders.

TRANSPARENCY



WHAT INFORMATION WILL YOU SHARE?

Do not cherry-pick the results you share. Present everything and be transparent and honest with your stakeholders; they will appreciate it.

WHO IS READING THIS INFORMATION?

Always keep your evaluation audience in mind. This could be program designers, facilitators, partners, funders or even government agencies. Think about why they are interested in this information and what they may use the results for.

AUDIENCE



ORGANISE



HOW WILL YOU ORGANISE THE REPORT?

A well-organised report will be easy for your audience to read and understand.

WHO WILL YOU SHARE THE INFORMATION WITH?

Share your evaluation report with key stakeholders and the wider public. Consider publishing your report to get the maximum impact from your evaluation.

DISSEMINATE



Evaluation Planning Tool

Use this worksheet to help you define, plan and design your program evaluation.

1. DEFINE

PROBLEM What issues does the program address? <hr/>			
AUDIENCE <hr/> Program participants Who is the program for? <hr/> Evaluation audience Who is interested in the evaluation?	GOALS SMART / Specific - Measurable - Achievable - Relevant - Time specific <hr/>		
	Outcomes - Short-term (immediate to 1 year)	Outcomes - Medium-term (2-4 years)	Impacts - Long-term (5+ year)

2. PLAN

ACTIVITIES <hr/> Activities What will participants do? <hr/> Inputs What is needed? <hr/> Outputs What is delivered?	EVAL. PRIORITIES 1-3 priorities for evaluation <hr/>	KEY QUESTIONS What questions will eval. answer? <hr/>	INDICATORS What demonstrates the outcomes? <hr/>

3. DESIGN

DESIGN APPROACH Pretest, posttest, time series? <hr/>	METHOD Qualitative, quantitative, mixed? <hr/>	DATA COLLECTION TOOL Survey, interview, observation? <hr/>