Chocolate Chip Cookies and Evaluation Logic

1. Determine Criteria
2. Develop a rating scale
3. Rate each cookie
4. Choose best cookie

Which cookie would you recommend?

Meet Juliane!
Undergraduate Research Assistant
Building the Research Development Professional’s toolbox and skills for developing project evaluation plans for grant proposals
Overview

• Brief history of the field of evaluation
• Funder expectations for evaluation
• Common evaluation terminology
• Evaluation models and theories
• Components of an evaluation plan
• Practice
• Q&A
Proposal Development

- 80+ collaborative proposals per year
- Strategic Planning

Program Evaluation

Integrated Technology

50+ Active Projects: ED, NSF, NIH, USDA
20 Full-Time Professional Staff

16 Undergraduate and Graduate Students

165,000 hours of Research & Evaluation

18 Years providing independent evaluation services
Why Evaluate?

Confirmation Bias

Photo credit: www.goodfreephotos.com
"No experience of the failure of his policy could shake his belief in its excellence"

"Once a policy has been adopted and implemented, all subsequent activity becomes an effort to justify it"

Louis Pasteur often refused to accept or publish experiments that disagreed with his theory

Brief History of Evaluation in the U.S.

1950’s
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1. Determine Criteria
Indicators for making your assessment
1. Determine Criteria
   Indicators for making your assessment

2. Develop a rating scale
   Metrics
1. Determine Criteria
   Indicators for making your assessment

2. Develop a rating scale
   Metrics

3. Rate each cookie
   Formative Evaluation
1. Determine Criteria
   Indicators for making your assessment

2. Develop a rating scale
   Metrics

3. Rate each cookie
   Formative Evaluation

4. Choose best cookie
   Summative Evaluation
1. Determine Criteria
   Indicators for making your assessment

2. Develop a rating scale
   Metrics

3. Rate each cookie
   Formative Evaluation

4. Choose best cookie
   Summative Evaluation

Which cookie would you recommend?
Determining Merit or Worth
Which is the best chocolate chip cookie?
Which is the best chocolate chip cookie?
Purposes of Evaluation

- Assess the Merit and Worth of a program
- Program and organizational improvement
- Monitoring and compliance
- Knowledge development
Evaluation vs. Research

Same (Social Science) Methods
- Surveys
- Interviews
- Focus Groups
- Document Reviews
- Social Network Analysis
- Bibliometrics
- Secondary Data Analysis

Different...
- Purposes
- Questions
- Audiences
- Communication and Reporting
- Expectations regarding use of results
Funder Expectations and How to Comply
The Basics

• Read! Read! Read!

• Bullet list of evaluation requirements

• Identify required evaluation supplemental documents

• Repeat for each solicitation
Best Chocolate Chip Cookies {Ever}

**Ingredients**

1/2 cup butter, melted
1 cup packed dark brown sugar
1/2 cup white sugar
2 large eggs

1 tsp vanilla extract
3/4 tsp baking soda
1 tsp salt
1 12 oz bag of semisweet chocolate chips
Directions

- Place melted butter in the bowl of a stand mixer fitted with the paddle attachment (or a large bowl if using a hand mixer). Add granulated and brown sugars and mix on low speed until the mixture is smooth. Mix in egg and vanilla extract and mix on medium speed until combined.
- Mix in baking soda and salt, then slowly mix in flour and mix just until the batter is smooth and comes together. Be sure to scrape the sides of the bowl during mixing. Slowly mix in chocolate chips.

Scoop 2 tablespoon balls of dough onto the cookie sheet. Spacing doesn’t matter because you will be chilling the dough. Cover with plastic wrap and chill for at least 2 hours.

- Preheat oven to 350°F. Line a second cookie sheet with parchment paper or a silicone baking mat.
- Remove the chilled cookie dough balls from the refrigerator and space them 2 inches apart on the cookie sheets. Bake (2 tablespoon sized cookies) for 11-15 minutes, or until the edges are a light golden and the tops are no longer glossy. Let cool on the cookie sheets at least 10 minutes before removing.
Evaluation Plan
Ingredients

- Credentials
- Questions
- Logic Model
- Data
- Budget
- Reporting
I HAVE NO IDEA
WHAT I'M DOING
Evaluation Requirements

- Eligibility
- Statement of work
- Budget
- Review/Scoring criteria
- Reporting requirements
Eligibility

Internal

External
Statement of Work

Type of Evaluation
- Formative
- Summative
- Process Evaluation
- Research

Purpose
- Goals
- Impacts
- Outcomes
- Outputs

Data Collection
- Metrics
- Indicators
Budget

Internal
- Personnel costs

External
- Estimated 10%
- Negotiate
- Indirect rate

Travel + Interviews = Higher cost
Reporting Requirements

- Frequency
- Type
- Audience
Identify Supplemental Documents

- Key personnel documents
- Data Management Plan
- Facilities and Resources
- Letter of Commitment/Collaboration
- Budget Justification
Now you understand evaluation expectations:

Make your evaluation plan
Evaluation Theories and Models


Image credits: Amazon.com
Evaluation Theories and Models

Evaluation Theories and Models


Theory-Based Evaluation
Evaluation Plan
Evaluation Plan
Evaluation Plan
Evaluation Plan
Evaluation Plan
Logic
Problem Statement / Project Aim
Problem Statement / Project Aim

Resources (Inputs)
Problem Statement / Project Aim

Resources (Inputs)  Activities
Problem Statement / Project Aim
Problem Statement / Project Aim

- Resources (Inputs)
- Activities
- Outputs
- Short-Term Outcomes
Problem Statement / Project Aim

- Resources (Inputs)
- Activities
- Outputs
- Short-Term Outcomes
- Medium-Term Outcomes
Problem Statement / Project Aim

- Resources (Inputs)
- Activities
- Outputs
- Short-Term Outcomes
- Medium-Term Outcomes
- Long-Term Outcomes / Impacts
Project AIM: Provide workshop attendees chocolate chip cookies to increase interest, engagement, and future recollection of OEIE’s Evaluation presentation.
**Project AIM:** Provide workshop attendees chocolate chip cookies to increase interest, engagement, and future recollection of OEIE’s Evaluation presentation.

**Assumptions:** Workshop attendees enjoy eating chocolate chip cookies and will fondly associate them with evaluation.
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<td>Attendees implement information and tools provided by OEIE</td>
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**Assumptions:** Workshop attendees enjoy eating chocolate chip cookies and will fondly associate them with evaluation.
Medium-Term Outcome / Impact

Attendees implement information and tools provided by OEIE
Evaluation Question

To what extent are attendees implementing the information and tools provided by OEIE?
Evaluation Question

What are participant demographics (e.g., gender, race/ethnicity, age, disability, etc)?
Evaluation Question

What is the impact of baking cookies on participants?
Answer big Questions

Drive Evaluation Plan

Guide Evaluation Design

Point toward Data
**Indicators:** Specific/measurable, connected to evaluation questions, evidence of progress

**Data Collection:** Methods and sources

**Analysis:** Procedures to summarize data

**Interpretation:** Results compared to expected outcomes/evaluation question
Seeking External Evaluation?
Seeking External Evaluation?

✓ Track record of successful evaluation
Seeking External Evaluation?

☑ Track record of successful evaluation
☑ Qualitative and quantitative competency
Seeking External Evaluation?

- ✓ Track record of successful evaluation
- ✓ Qualitative and quantitative competency
- ✓ Cultural competency
Seeking External Evaluation?

- Track record of successful evaluation
- Qualitative and quantitative competency
- Cultural competency
- Familiarity with funding agency
Describing Evaluator Qualifications
Describing Evaluator Qualifications

✓ Name and organization of evaluator
Describing Evaluator Qualifications

- Name and organization of evaluator
- History and background
Describing Evaluator Qualifications

- ✓ Name and organization of evaluator
- ✓ History and background
- ✓ Experience with similar programs
Describing Evaluator Qualifications

- Name and organization of evaluator
- History and background
- Experience with similar programs
- Biosketch and other key personnel documents
Communication and Use:

Consider the audience

• Reports
• Dates
Let’s Practice
Scenario:
NSF has released a RFP calling for projects that will improve K-12 science and math literacy in rural America.

Project Idea:
Improve access to the latest findings surrounding genetics and cell biology through reliable online forums and training modules for Junior High and High School teachers.
Let’s Practice:

What **outcomes** do you hope to achieve?

**Scenario:**
NSF has released a RFP calling for projects focused on improving K-12 science and math literacy in rural America.

**Project Idea:**
Improve access to the latest findings surrounding genetics and cell biology through reliable online forums and training modules for Junior High and High School teachers.
Let’s Practice:

What **activities** are required?

**Scenario:**
NSF has released a RFP calling for projects focused on improving K-12 science and math literacy in rural America.

**Project Idea:**
Improve access to the latest findings surrounding genetics and cell biology through reliable online forums and training modules for Junior High and High School teachers.
Let’s Practice:

What **outputs** will be produced?

**Scenario:**
NSF has released a RFP calling for projects focused on improving K-12 science and math literacy in rural America.

**Project Idea:**
Improve access to the latest findings surrounding genetics and cell biology through reliable online forums and training modules for Junior High and High School teachers.
Let’s Practice:

What do you want to know?
Write 2-3 evaluation questions

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Project Idea:
Improve access to the latest findings surrounding genetics and cell biology through reliable online forums and training modules for Junior High and High School teachers.
Let’s Practice:

What **data** will you need to answer evaluation questions?

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**Project Idea:**
Improve access to the latest findings surrounding genetics and cell biology through reliable online forums and training modules for Junior High and High School teachers.
Let’s Practice:
How often will you communicate with your evaluator? What media (e.g., telephone, Skype, face-face)?

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Improve access to the latest findings surrounding genetics and cell biology through reliable online forums and training modules for Junior High and High School teachers.
Resources and Tools
Resources and Tools

Handbook
Resources and Tools

Handbook

Handbook
Resources and Tools

Handbook

Handbook

Online Resource
Questions