Evaluating Research Development: Metrics and Satisfaction Surveys

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Goals

- To introduce the concept of internal evaluation for research development offices
- To demonstrate how metrics can be used to evaluate research development
- To discuss best practices in evaluating the satisfaction of faculty who work with your office

Overview

- Introduction to Evaluation and Metrics
  - Evaluation 101
  - Commonly used metrics and their pros and cons
- Value of Evaluation and Metrics
  - Demonstrate the importance of evaluation and metrics
- Case Studies
  - Evaluate the utility of different metric styles
- Do It Yourself
  - Outline how to design and implement a metrics study
- Conclusion

Introduction to Evaluation and Metrics

What is Evaluation

- Evaluation is “the making of a judgment about the amount, number, or value of something; assessment”
- Program evaluation specifically reviews the extent to which a program is meeting stated goals, and having its intended effects
- Both internal and external evaluations have value and can bring insight

Who Can Act as an Internal Evaluator?

- For internal use, any research development professional can act as an evaluator
- We will not be discussing evaluation involving detailed statistical analysis today
- For statistically significant results, more robust methods are needed

The Five-Tiered Approach to Evaluation

- Created by Dr. Francine Jacobs, this approach outlines five levels of evaluation that move from descriptive to determining program effects
- Designed for outside evaluators, but good structure for our internal evaluation purposes
- For evaluating a Research Development office without a professional evaluator, Tiers 1, 2, and 3 are good models.
- Beyond what is outlined here, I suggest: *Jacobs, F. & Kapuscik, J. (2000). Making it count: Evaluating family preservation. Medford, MA: Family Preservation Evaluation Project, Tufts University*.

What are Metrics?

- A means of representing a quantitative or qualitative measurable aspect of an issue in a condensed form
  - Horvath, 2003, as cited in Kreimeyer & Lindemann, 2001, p. 75
- Measures used to evaluate and improve the efficiency and effectiveness of business process
  - Cole, 2010, p. 14

Commonly Used Metrics

- Measures of research productivity:
  - Success rate (number of submitted proposals accepted for funding)
  - Number of applications submitted
  - Dollar amount of funding applied for and received

Gap with Current Metrics

- Lack of a universal standard
- Lack of focus on quality of service being provided
  - Cole, 2010, p. viii
- Oversimplification
  - Kaplan & Norton, 1992, as cited in Kreimeyer & Lindemann, 2001, p.87
- Influenced by external factors

Potential Solution

1. Complexity metrics
   - Take into account the complexities of the tasks performed
     - Take significant time and effort to develop
     - Cumbersome and time-consuming for end-users
     - Opinions differ on how much weight should be assigned to various components
2. Satisfaction metrics
   - Assessed using both quantitative and qualitative measures
   - Capture the product-related experience of the service and the value provided to the customer
     - Few studies / guides for how to perform

Value of Evaluation and Metrics

Why Should I Evaluate My Office?

- Your performance is already evaluated
- If you provide the metrics, you gain control over what you are evaluated for
- Internal evaluation allows you to:
  - Monitor performance
  - Aid in planning for future initiatives
  - Begin data collection to ground future evaluations
  - Assess how your office’s programs and procedures are actually implemented, in terms of quality and consistency
  - Learn about how your clients view your services

Senior Leadership

- Evaluation is a way to speak to Senior Leadership
- Use metrics and evaluation to:
  - Gain support for investments in resources
  - Justify investments previously made in resources
  - Explain the value your office brings to the University beyond successful proposals

Case Studies

1. **Office of Research Administration Metrics Study**
2. **Office of Research Development Satisfaction Study**

ORA Metrics Study

Quantitative Metrics

(tracking and non-survey based)

Conducted by: Zoya Davis-Hamilton, EdD

- ORA Background:
  - Pre-award and non-financial post-award services

Objectives & Hypothesis

- Objectives:
  - Map processes (analyze the flow and length of time for each process)
  - Identify bottlenecks and opportunities for streamlining service delivery
- Hypothesis:
  - Analysis of documentation flow and length of time for each action required to complete the process would allow for identification of bottlenecks and opportunities for streamlining service delivery

Study Design

- Quantitative metrics were identified for 4 processes:
  - Proposal submission
  - Rebudget requests
  - No-cost extension requests
  - Subawards (Tufts as Prime)

Approach

- ORA Boston office (four staff members) recorded dates of all actions relevant to each process in a shared Excel document
- Study Period: 3 months (June through August 2013)
  - Represents a quarter-cycle of annual pre-award activity

Results

Proposal Submission

- 33% arrived to ORA on day of deadline
- Average resubmission rate 1.27

Rebudget Requests

- 35% required revisions or additional information
- Only 11.5% required ORA involvement

No-Cost Extension Requests

- 44% required additional information

Subawards

- Largest bottleneck was gathering information from department and waiting for countersignature

Timeline

Develop metrics	1 week
Train staff	1 week
Track data	3 months
Analyze data	2 weeks
Develop recommendations	2 weeks

Utility

PROS	CONS
• Quickly uncover issues • Results are immediately useful • Can be implemented internally without the involvement of customers	• Focus solely on operational dynamics, not cultural dynamics • Impossible to explore the departmental difficulties • Significant time required from staff

ORD Faculty Satisfaction Survey

Mixed Methods

Conducted by: Sarah Marina

- ORD Background:
  - Pre-award research development services
  - Founded ~10 years ago as an independent unit
  - Mission is to assist with large, complex proposals, and new and inexperienced faculty
  - Open to all Tufts faculty
  - Provides:
    - Grant writing
    - Proposal editing
    - Project management tools
    - Funding opportunity searches and database training
    - Trainings and workshops on aspects of proposal preparation

Research Questions

1) To what extent, if at all, were you satisfied with the services you received from the ORD during your proposal preparation?

2) To what extent, if at all, do you perceive that your skills in grant writing and proposal submission have improved as a result of your work with the ORD?

Survey Design

- Mixed methods: combined quantitative and qualitative questions
  - Quantitative questions used 4 and 5 point Likert scales
- Total of 23 questions, broken into four sections:
  1) Background information
  2) Experience with ORD
  3) Grant submission habits post-ORD support
  4) Conclusion section to provide feedback (open ended)

Approach

- Target population (N = 119): faculty who used services from 2009 and 2014
  - Approached via email to ask for their participation

- Survey remained open for a period of six weeks, with an initial request and three reminders sent via email

- Faculty who consented to take the survey were directed to an online survey tool, with an average response time of ~10 minutes

Example of Paired Question

Experience with the Office of Proposal Development
In this section you will be asked to discuss your experience working with the OPD. Some questions will ask you to rate your satisfaction with experiences and services on a scale. Others will ask you to describe your thoughts on the services provided.

1a. Please rate your satisfaction with the overall services provided to you by the OPD, using the scale below.

Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
○	○	○	○	○

1b. Please explain your rating in the space below, citing specific examples where available.

Results

- 27 faculty provided valid responses, a 22.7% response rate
- 92.6% were very satisfied (N = 17) or satisfied (N = 8) with OPD services
- 96.3% would recommend the ORD to a colleague, and 96.3% would also use ORD services again
- 77.8% reported that working with the ORD had a high (N = 11) or moderate (N = 10) impact on their confidence level
- 85.2% reported that ORD had a high (N = 14) or moderate (N = 9) impact on ability to prepare competitive grant proposals

Timeline

Prepare survey	2-3 weeks
IRB approval	2-3 weeks
Administer survey	6 weeks
Analyze responses	2-3 weeks
Prepare report	2 weeks

Utility

PROS	CONS
• More nuanced and actionable survey results • Creates baseline of metrics and faculty perspective • Provides greater understanding of ORD goals and a chance to reflect on what has been gained • Demonstrates value of ORD to upper administration	• Lower response rates than more quantitative surveys • Larger time commitment for those administering and participants ○ May depress responses

Do It Yourself

DIY Steps to Implement at Your Institution

1. Determine metrics that accurately assess the success of your office
2. Write questions that capture these metrics and design your survey
3. Get buy-in from key stakeholders
4. Determine survey administration method
5. Launch survey, sending reminders every 2 weeks
6. Analyze results, determining a baseline
7. Report results to stakeholders

Step 1 - Determine Metrics

- Key to successful metrics is that they are:
  - Measureable
  - Tied to what your office does and its goals/mission
- Evaluate what it is you want to measure, then determine how best to measure it
  - May require a mix of quantitative metrics (what objectively are you doing) and qualitative metrics (how satisfied are your constituents with what you are doing)

Step 2 - Write Questions

- Create your own or draw from examples in the literature/questions used at peer institutions
- Be brief and clear
- Use key phrases such as ‘were you satisfied’ or ‘to what degree do you perceive services affected…’
- If you intend to quote qualitative responses in reports, include a question asking permission to do so

Step 2, cont. - Design Survey

- Decide who is in your target population
- Determine whether your survey will be anonymous or not
- Balance quantitative and qualitative questions

Step 3 - Get Buy In

- Success depends on acceptance from the top
- Bring idea to key stakeholders, explaining why this approach is useful in evaluating your office
  - Be prepared to answer questions about:
    - Time commitment
    - How you determined your metrics
    - Why now is a good time to implement a survey
    - What you intend to do with the results
- Early buy-in is crucial
  - Senior Leadership can support survey implementation and help take action on results

Step 4 - Determine Administration Method

- Paper, email, or via an online survey tool
- Online survey tools have the advantage of being anonymous, offering real time results, and data analysis tools when your survey is over
  - SurveyMonkey
  - Google Surveys
  - Qualtrics (by subscription)
- Ask others at your institution who have administered surveys what tools they have used successfully

Step 5 - Launch Survey

- Can be the most time consuming without administrative support
- Send an invitation email to target population and include dates when survey will open and close
  - Include letter explaining the survey in more detail, including why you are launching it, what you hope to learn, and how results will be used
  - Include IRB information if applicable
- Send reminder to those who have not yet participated every two weeks for six weeks

Step 6 - Analyze Results

- Once survey is closed, it is time to analyze results
- For quantitative questions, determining percentages is fairly straightforward
- Analyzing qualitative results is more tricky
  - Review all text-based results, looking for repeated words, ideas, and phrases
    - valuable, great, competent, etc.
  - Review qualitative data both internally and compared to quantitative answers

Step 7 - Report Results

- Draft a brief report for your stakeholders, both those in upper administration and those whom you serve
- Reporting allows you to start a conversation about your office's strengths and weaknesses and to demonstrate the value of satisfaction metrics as an evaluation tool
- Stakeholder feedback can give you a good idea of what metrics should be studied annually

Choosing Evaluation Method

- Type and combinations of methods depend on:
  - Goal of evaluation and needs of a given office
  - Available baseline data
  - Amount of time and institutional support available for those administering evaluation
  - Amount of time and effort that can be asked of survey respondents

Conclusion

Take-Aways

- Two profiled studies offer different methods of internal evaluation
- Each study demonstrates methods to assess the impact, strengths, and weaknesses of a research development office
- Metrics and evaluation can be used to show the full value of a research development office

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