

## **Reporting Evaluation Results**

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### **I. Questions and Answers**

- A. How can you set up results?
1. Plan in advance how to analyze data when first creating activities.
  2. Make decisions on format: table, graph, and/or chart.
  3. Outline mock tables, graphs, and/or charts - have ready for when your findings are available.
  4. Example: Videotape Effort at Purdue University.
- B. How can you simplify results?
1. Look at results over a short or long period of time for one program activity.
  2. Example: Note the number of participants in a recruitment effort, then calculate the percentage of those students who enroll.
  3. Example: Videotape Effort at Purdue University.
- C. How can you synthesize results?
1. Set up a design for one program activity.
  2. Randomly select and assign female engineering students to "program activity" and "non-program activity" groups.
  3. Conduct formative evaluations at end of monthly events and annual summative evaluations of activities.
  4. Compile results from the initiative.
  5. Assess retention rates of "program activity" and "non-program activity" groups.
  6. Example: Undergraduate M&M Mentoring Program at Purdue University.
- D. How do you interpret results?
1. Quantitative and/or qualitative?
  2. Look for commonalities in findings.
  3. Example: Personal Connection Program at Purdue University.
- E. How do you report results?
1. Construct a one-page sheet: objectives, results, and future plans of program activities.
    - a. Intended audience: program staff, department heads, and deans.
    - b. Example: Sloan Initiatives at Purdue University.
  2. More detailed description: summarize results; relate goals and objectives; describe activities; review methods; discuss findings; give conclusions; and make recommendations.
    - a. Intended audience: Funding agencies, sponsors, etc.
    - b. Example: Annual Report to the Sloan Foundation.

- F. How can you utilize results?
  - 1. Internal Distribution: directors, faculty, department and division heads, deans, and other administrators.
  - 2. External Distribution
    - a. Annual report: private foundations, governmental agencies, state organizations, community groups, and alumni.
    - b. Present papers at conferences (such as WEPAN). Submit papers to professional publications.
  - 3. Maintain a database to track retention of program activity participants.
- II. Regional Reports
  - A. Western Region: Susie Laurich-McIntyre - Center Results.
  - B. Midwestern Region: Cinda-Sue Davis - University Results.
  - C. Eastern Region: Michelle Fish - National Effort.
- III. Future Directions for Evaluation
  - A. Standardization of measures used for evaluation.
  - B. Comparisons within and across institutions - using standard measures.

### CONCLUSIONS

Evaluation of Women in Engineering Programs and/or activities provides professionals with information that can underscore objectives, document achievements, shape policies, and be used to obtain funds. The process of evaluation involves measuring success as defined by a diverse group of stakeholders such as students, directors, faculty members, department heads, deans, university presidents, and/or sponsoring organizations. The important steps to consider in evaluation are: identifying goals; establishing comparison groups; developing instruments (measures); administering surveys, interviewing, etc. to obtain information; and then analyzing the data that has been collected.

Administrators need to plan in advance for evaluation. This plan needs to specify how results will be set up and presented, how the process can be simplified, and what can be done to synthesize findings and interpret outcomes. Planning evaluation makes compilation of results into a report more straight-forward. These reports can be important both internally and externally for the benefit of the program.

Finally, in order to advance the state-of-the-art of evaluation of Women in Engineering Programs and/or activities, professionals should consider using standard measures and instruments. Such standard measures will enable comparisons both within and between institutions.

### **PROGRAM EVALUATION: PARTIAL BIBLIOGRAPHY**

Denzin, Norman K. and Yvonna S. Lincoln (eds.). 1994. **Handbook of Qualitative Research**. (Thousand Oaks, CA: Sage).

Qualitative methodologies have come far in the past twenty years and social scientists have established guidelines and standards for their use. This volume features excellent articles about many qualitative techniques, including a review article by Greene on qualitative methods for program evaluation.

Michael, Robert T., John H. Gagnon, Edward O. Laumann and Gina Kolata. 1994. **Sex in America: A Definitive Survey**. (Boston, MA: Little, Brown).

This guide to the findings of the only scientifically gathered information about sexual practices in the U.S. was written for the "lay" person (a more technical version was written for academics). The first 41 pages are an excellent and readable review of the methodological issues confronted by survey researchers.

Monette, Duane R., Thomas J. Sullivan, and Cornell R. DeJong. 1994. **Applied Social Research: Tool for the Social Services**. (Fort Worth, TX: Harcourt, Brace College Publishers).

Of the many social research methods textbooks available, a book such as this is ideal for people in social service. Written for social work students with an emphasis on applied practice, this book reviews the many social science research methods. The numerous case studies are helpful and the text clearly reviews the advantages and disadvantages of the various methods of research.

Rossi, P. H. and H. E. Freeman. 1985. **Evaluation: A Systematic Approach** (Newbury Park, CA: Sage).

This is the standard program evaluation textbook, which may be a good reference, but you should plan on having other sources about specific research methods to supplement this information. Rossi and Freeman give very little of the "step-by-step" advice that you will need to receive from other sources.

Rossi, Peter H., James D. Wright and Andy B. Anderson. 1983. **Handbook of Survey Research**. (Orlando, FL: Academic Press).

If you plan to do survey research, this compilation of more than fifty years of social scientific research is indispensable. This book is not written for the "lay" reader, but those with a moderate mathematics background should have no problem with this book. A newer edition should provide more information about the use of computers.

Quill, Joyce. 1992. "Using Consultants in Evaluation Research: A Client's Perspective." **Evaluation and Program Planning** 15: 67-69.

A good guide with useful hints, this article is helpful if you plan to bring in outside evaluators.

Sichel, Joyce. 1982. **Program Evaluation Guidelines: A Research Handbook for Agency Personnel**. (New York, NY: Human Sciences Press).

Although some advice is a bit dated, this is a helpful, no-nonsense overview of evaluation for practitioners. This guide gives good ideas for evaluation but takes a rather limited view of evaluation, given the greater breadth of evaluation research since its publication.

Note: The Sage (publisher) series on program evaluation contains little procedural guidance and assumes readers have a good research methods background.