Collecting and Analyzing Data for Effectiveness and Improvement

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The Institutional Effectiveness Model

TEXAS TECH UNIVERSITY HEALTH SCIENCE CENTER EL PASO
Office of Institutional Research and Effectiveness
So far, we have:
• Adopted a mission statement.
• Defined our goals and objectives.
• Developed expected outcomes.
• Decided how we are going to measure those outcomes.
• Set targets we want to strive for.

Next, we need to:
➢ Collect data using our defined measures.
➢ Analyze data to determine if we have met our targets.
Why do we collect data?

- Data can provide credible evidence to show that your program/department/office is successful.
- It may uncover and address limitations.
- It helps with internal quality, efficiency, productivity, funding, etc.
- It shows that you are serious about improving your program/unit/organization.
- It helps us grow as an institution.
Let’s break it down…

What do we mean by collecting data?
Developing a plan for successful data collection.
– Why is the data being collected?
– How do you collect data?
– When should data be collected?

What do we mean by analyzing data?
What do we mean by collecting data?

- Collecting *information* about your operation/program.
  - Administration of services/programs.
  - Processes involved in delivering services.
  - Efficiency/progress in meeting timelines/goals.
- Using your measures to collect good information.
  - Surveys, document records, logs, reports, tests/exams, evaluations, interviews, etc.
- Organizing data in ways that makes it easier to track, monitor, retrieve, and share.
Develop a plan for successful data collection

**COLLECTING DATA**

- **How** do you collect data?
- **When** should data be collected?
- **How** do you analyze data?
How do you collect data?

- Clearly define and describe what measurements are needed.
- May include reviewing records, reports, archival material, historical data, etc.
- May include conducting surveys, focus groups, interviews.
- May include engaging in direct observations.
- May include simple counting, collecting headcounts, frequencies, rates, percentages, summarizing data, gathering existing statistics, graphs, charts, etc.
When should data be collected?

- Data collection should start no later than when you begin your work or before you begin to establish a baseline or starting point.
- Data should be collected for a period of time in order to determine changes and trends.
- Data might be collected pre- and post an intervention to determine impact.
- In order to measure your program’s long-term effects, follow-up data should be collected for a period of time following the conclusion of your program.
What do we mean by analyzing data?

- Analyzing information involves examining it in ways that reveal:
  - Outcomes
  - Trends
  - Patterns
  - Relationships
- Summarizing data so that it can be reviewed and interpreted.
  - May include simple counting, frequencies, rates, percentages.
  - May include statistical analysis, calculating mean/mode/median, differences, correlations, etc.
  - May include graphing, tables, etc. to visualize data patterns.
Analyzing Results

• Comparing actual results to previously determined goals and targets.
  • *Did we meet the target?*
    – *Did we get close?*
    – *Did we go beyond?*
• Looking at data to identify changes (marked increases, decreases) in the measures over time (weeks, months, semesters, years).
• You may need to compare your data to other groups’ data to draw some conclusions.
  • Previous survey takers, previous student cohorts.
  • Peer institutions/schools.
  • Statewide figures, national data.
Most Importantly…

• We need to gather, organize, and summarize our data.
• We need to look at our data.
• We need to try to understand our data.
• We need to use our data to plan, strategize, and improve.
Data for Improvement

• Data helps us to better understand our work and the impact it has on those we serve.
  • Evidence-Based Practice
  • Evidence-Based Service
  • Evidence-Based Education
Examples

*How has your data helped to make changes and improvements?*
OIRE Survey Coming Soon…
Thanks to the OIRE Team!
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References
Operations in Evaluating Community Interventions – Collecting and Analyzing Data:
Data is Power:
https://www.youtube.com/watch?v=77UPUxB2b7o