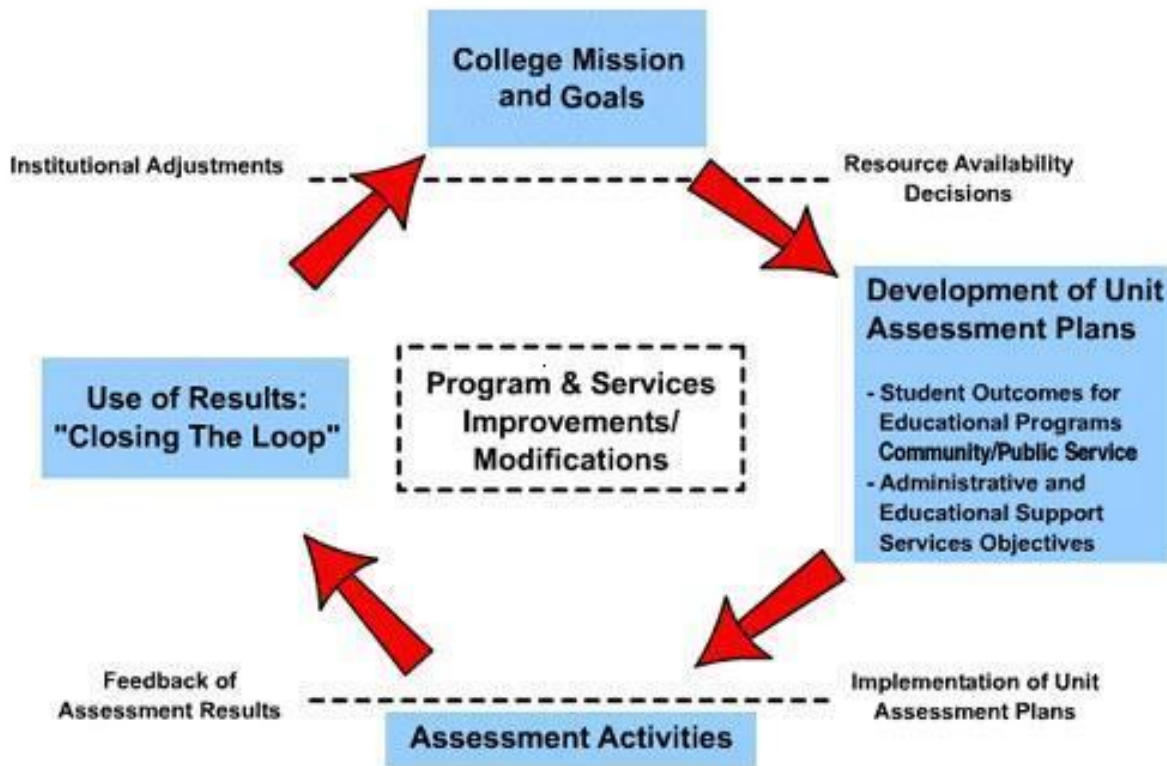TEXAS TECH UNIVERSITY
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EL PASO

Office *of* Institutional Research *and* Effectiveness

Collecting and Analyzing Data for Effectiveness and Improvement

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The Institutional Effectiveness Model

Adapted from: A Practitioner's Handbook for Institutional Effectiveness and Student Outcomes Assessment Implementation by James O. Nichols, Third Edition, 1995, Agathon Press, New York

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October/November:
Peer Review/Feedback

Start Here
Review/Reflect

What are we trying to do?

Improvements

What new strategies are we implementing?

Goals

Where do we want to go?
What do we want to accomplish in the long-term?

September:
Enter Improvements
IE Plan Closes

December:
Review Feedback
Reflect

January:
IE Plan Opens

Action Plan

August/September:
Strategize

Mission

Objectives

What can we do differently?
How can we do better?

August:
Analyze Data/Enter Findings

Spring:
Plan
Revise
Ongoing Data
Collection

What are we going to do?
What will we offer and deliver?

Results/Data Analysis

Summer:
Collect/Gather Data

Expected Outcomes

What did they achieve/learn?
What did we produce?
What does the data tell us?
Did we meet our target(s)?

Measures/Targets

What should they learn/achieve?
What should our activities produce?

How will we assess learning/achievement?
How will we evaluate our progress/productivity?
What type of data will we collect?
What targets do we want to meet?

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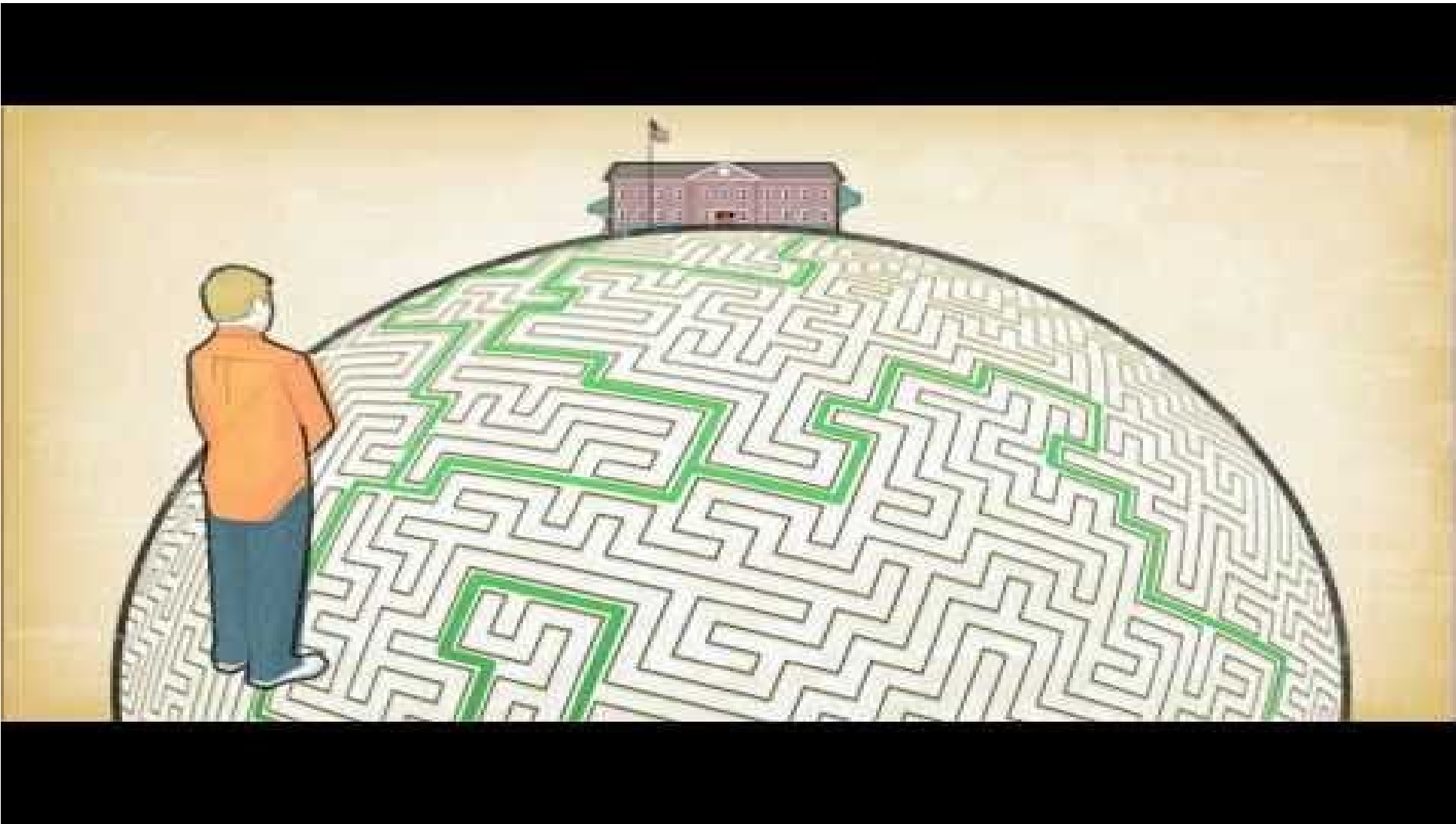
So far, we have:

- 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.

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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?
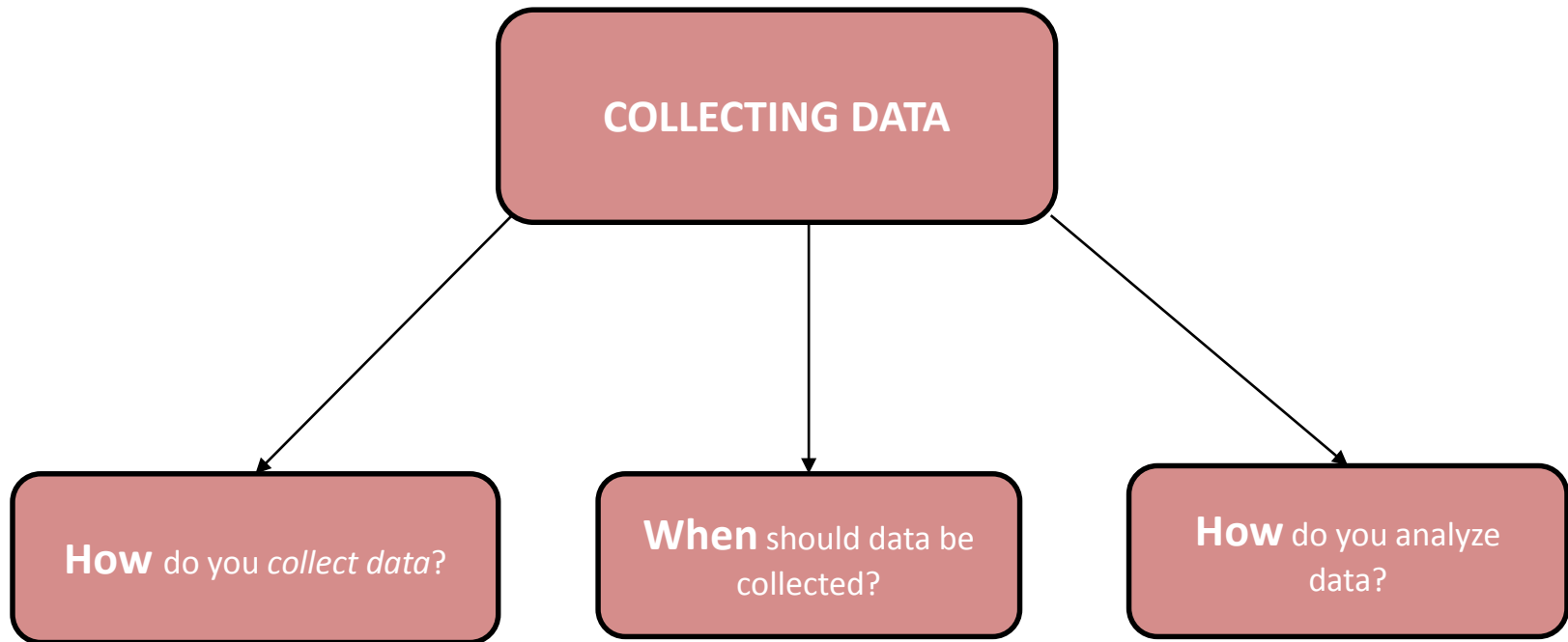
What do we mean by analyzing data?

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:

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