

# Carl D. Perkins Application Workshop January 10–11, 2019

## Data–Driven Decision Making

College and Career Readiness Bureau

Marangellie Trujillo, M.S., Project Manager, CCRB

# Agenda

- ▶ **Introduction**
- ▶ Data-driven decision making
- ▶ Quality Improvement Tools
  - Marshmallow Challenge
- ▶ Take-home messages



# Expectations

- ▶ Be Welcomed & encouraged
- ▶ Use My Perkins Application Workshop Action Plan
- ▶ Participate actively
  - Use session tools
  - Share stories
  - Ask questions
- ▶ Have fun learning together

I HAVE NO IDEA  
WHAT'S GOING  
TO HAPPEN.



AND I LOVE IT.

# Goal and Objectives

## Goal:

- ▶ Create foundational knowledge

## Objectives:

- ▶ Use data to focus improvement
- ▶ Identify & implement improvement opportunities



# Healthcare with He❤️rt



# Agenda

- ▶ Introduction
- ▶ **Data-driven decision making**
- ▶ Quality Improvement Tools
  - Marshmallow Challenge
- ▶ Take-home messages



# Data-Driven Decision Making: Benefits

- ▶ Allocate resources strategically
- ▶ Make changes intentionally and quickly
- ▶ Ensure staff understand the why
- ▶ Empower staff
- ▶ Teach staff to read, trust, and use data



# Data-Driven Decision Making: What does it take?

- ▶ Commit to improving performance
- ▶ Team approach to decision-making
- ▶ Systematic collection and analysis of performance data



# Commitment to Improving Performance

## Visible Leadership

- ▶ Commitment of senior management to an aligned culture of quality
- ▶ Regularly weighs customer feedback
- ▶ Enables transparency



# Team Approach to Decision-Making

► Fill the right roles with RAPID.

Who:

- Recommends?
- Agrees?
- Performs?
- Provides Input?
- Decides?



NOT This

# Team Approach to Decision-Making

- ▶ Gather team members' input
  - Important goals for the decision?
  - Best realistic choices to meet these goals?
- ▶ Share perspectives
  - What stands out?
  - What is missing?



# Team Approach to Decision-Making

- ▶ Communicate team work
  - Real buy-in
  - Team decisions are high-quality
  - Specific thanks



# Systematic Collection and Analysis of Performance Data

## Performance Standards

- ▶ Improve educational practices with standards, targets, and goals
- ▶ Set standards
  - Based on guidelines
  - Benchmarked



# Systematic Collection and Analysis of Performance Data

## Performance Measurement

- ▶ Use performance measures
- ▶ Assess the achievement of performance standards



# Use Data to Monitor and Improve Quality and Program Performance

*“It is a capital mistake to theorize before one has data.”*

–Sir Arthur Conan Doyle as Sherlock Holmes

- ▶ Monitor program performance
- ▶ Communicate program performance
- ▶ Inform decision-makers



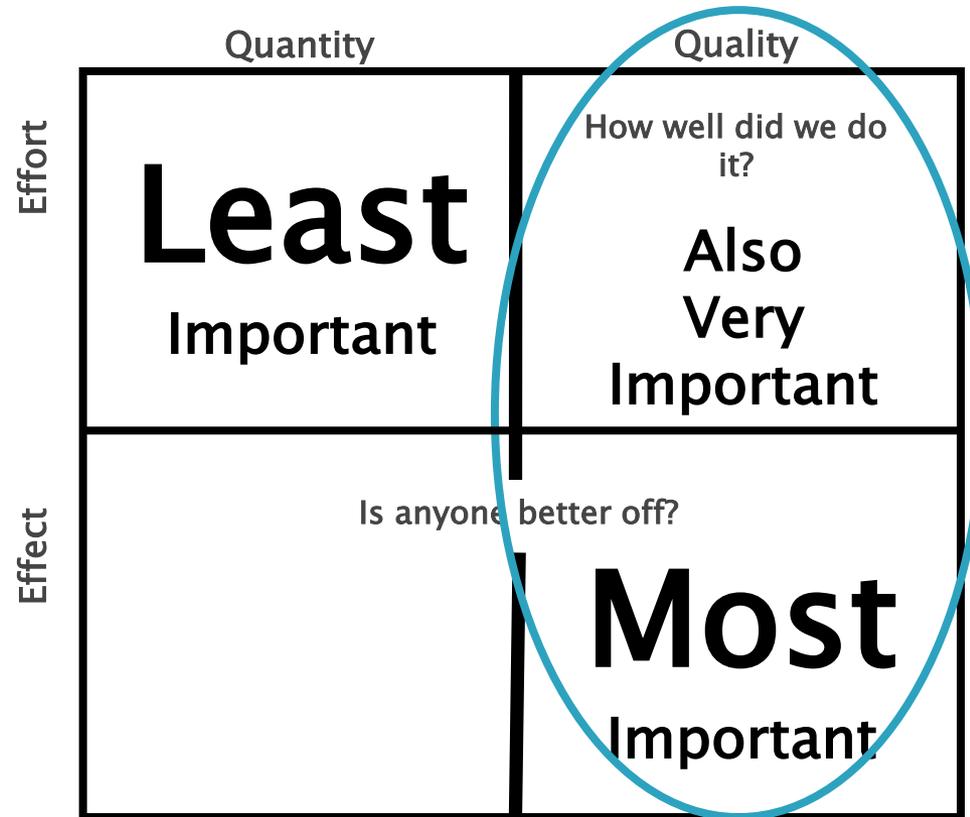
# Types of Performance Measures: Data

Quantity

Quality

Effort	How much did we do? Counts	How well did we do it? Percentages/ Averages/ Ratios
	Counts	Is anyone better off? Percentages/ Averages/Rates
Effect		

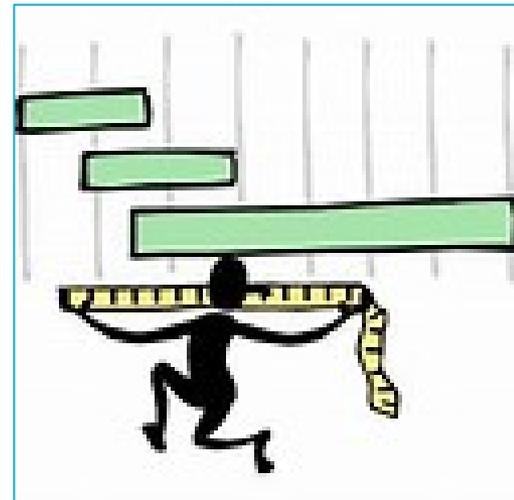
# Not all performance measures are created equal



# Systematic Collection and Analysis of Performance Data

## Reporting Progress

- ▶ Document how standards and targets are met
- ▶ Share and post information
  - Quarterly performance reports
  - Annual progress reports



# Systematic Collection and Analysis of Performance Data

## Quality Improvement (QI)

- ▶ Establish a program or process to manage change
- ▶ Achieve QI in:
  - Policies
  - Programs
  - Infrastructure

Continuous Quality Improvement Cycle



# Key Elements of a Data-Driven Process in Education

- ▶ Data Infrastructure
- ▶ Assemble high-quality raw data
  - Test results
  - Transcripts
  - Observations
  - Surveys
  - Financial records



# Key Elements of a Data-Driven Process in Education

## ▶ Analytic Capacity

- Implement data practices
- Access and analyze data
- Manage data and ensure security

## ▶ Capacity for Data Use

- User-friendly formats
- Web access



# Key Elements of a Data-Driven Process in Education

- ▶ Culture of Evidence Use
  - Strong leadership
  - Accountability systems
  - Promoting data sharing
  - Time allocation and resources



# Agenda

- ▶ Introduction
- ▶ Data-driven decision making
- ▶ **Quality Improvement Tools**
  - **Marshmallow Challenge**
- ▶ Take-home messages



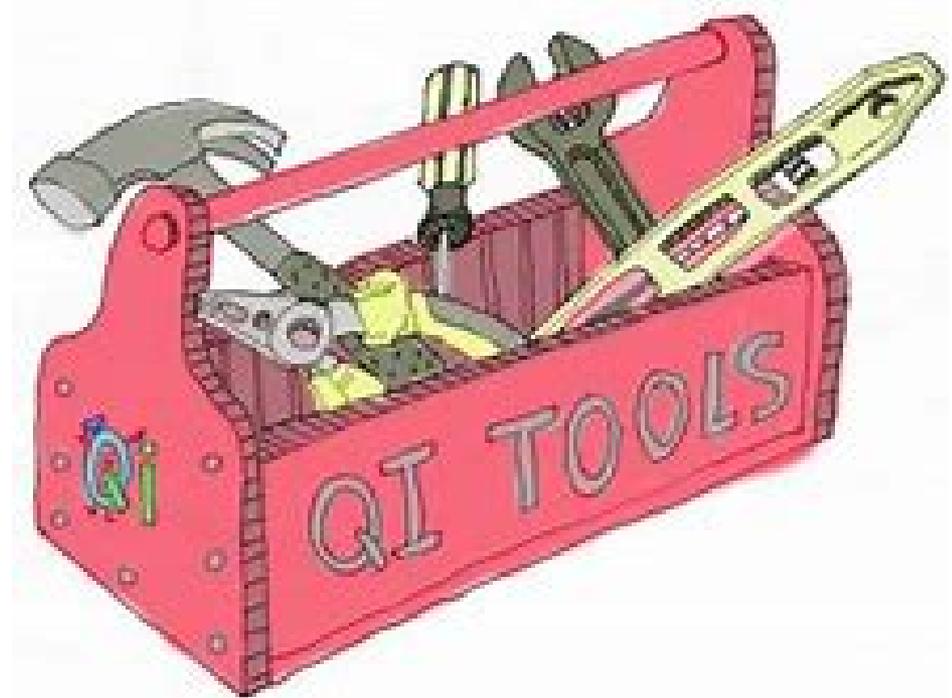
# Evaluation

- ▶ Assign specific program personnel
- ▶ Use evidence-based practices
- ▶ Measure the design, implementation, and impact of programs
- ▶ Collect and analyze information systematically
- ▶ Justify the program's merit or worth

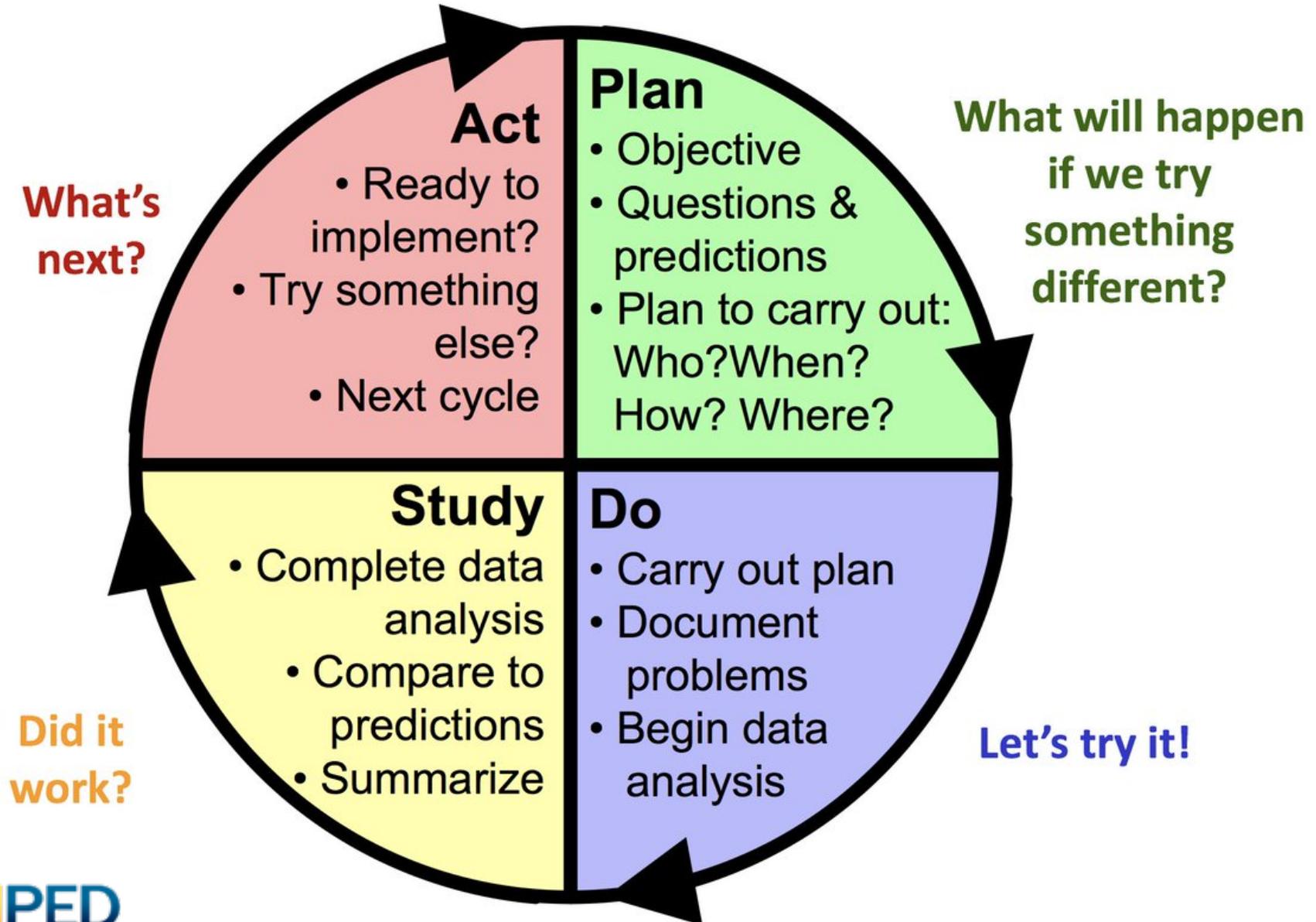


# Quality Improvement Tools

- ▶ Improve a process or carry out **change**
- ▶ Aid in **continuous improvement** in education
- ▶ Trigger as needed



# The PDSA Cycle for Learning and Improvement



# Quality Improvement Tools

## ▶ Ask questions:

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in an improvement?



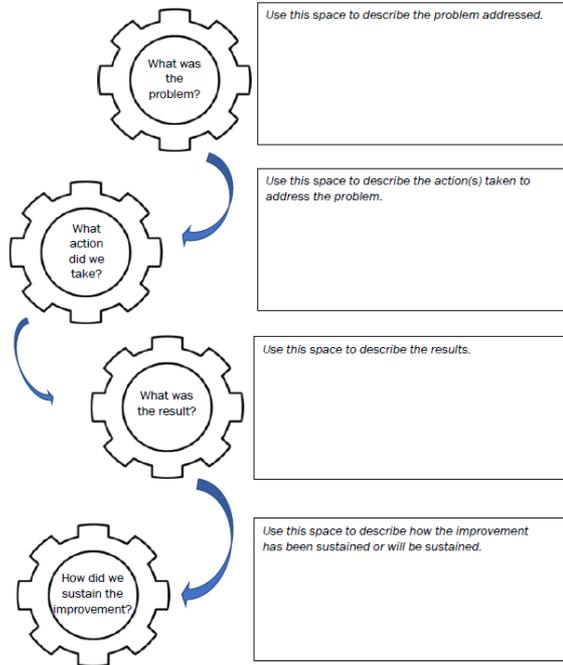
# Teamwork makes the dream work: Marshmallow Challenge

- ▶ Get in teams of six
- ▶ Use materials on your table
- ▶ Make the highest structure that holds one marshmallow at the end of 14 minutes
- ▶ Team with the highest standing structure wins



# Additional Performance Improvement Tools

## Very Fast Improvement Tool (VFIT)



	<b>A3 Problem Solving Tool</b>		Project Title: _____
	Background / Story Behind the Curve: _____		Project Contact: _____ Project Report Date: _____
Stakeholders: _____	Solutions: _____		Action Plan: _____
Current Condition / "As Is" State: _____	Analysis / Root Causes: _____		Metrics: _____
			Plan for Sustainability: _____

Very Fast Improvement Tool

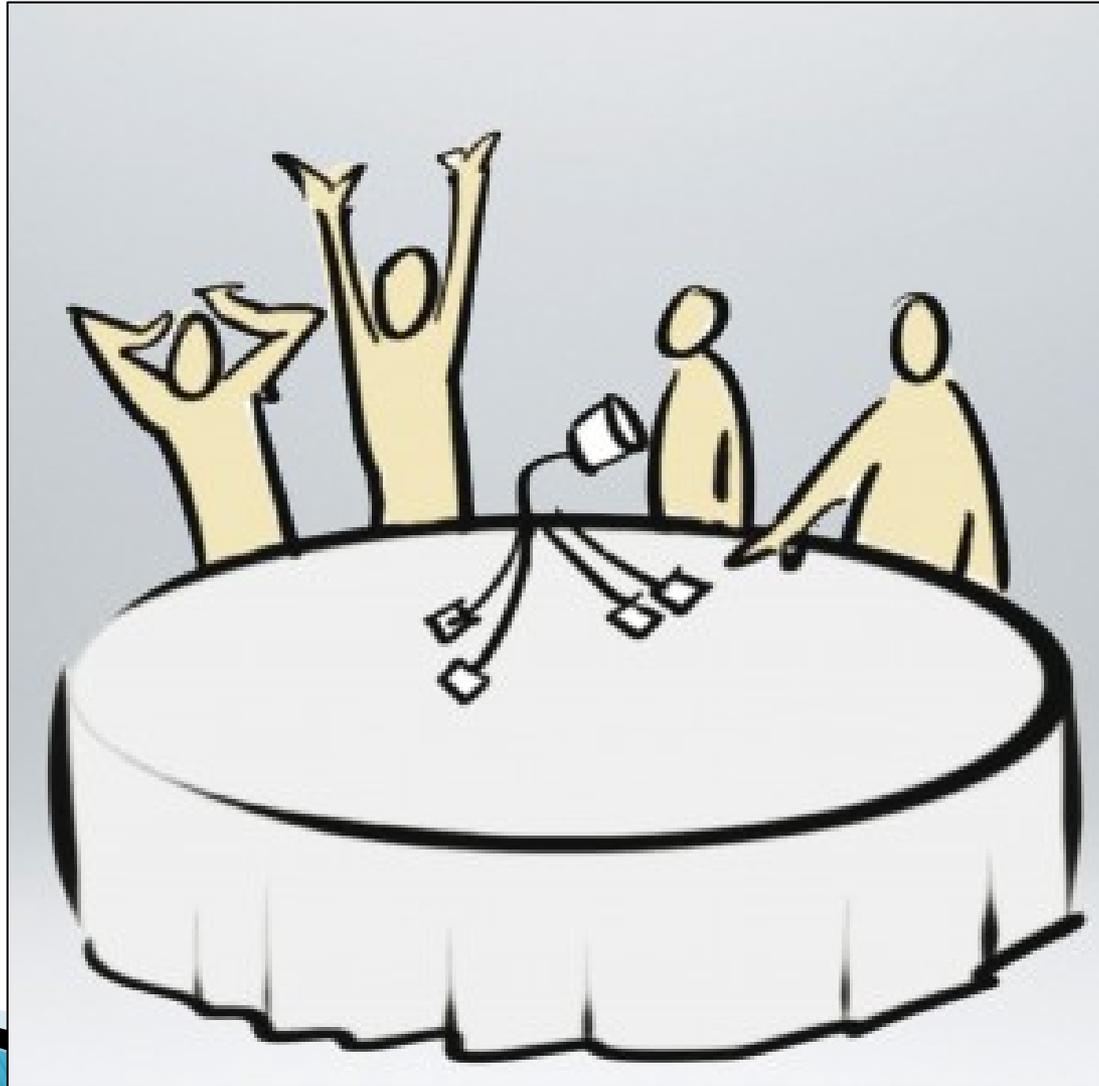
A3 Problem Solving Tool

# Marshmallow Challenge: Instructions

- ▶ Build the tallest freestanding structure
- ▶ The entire marshmallow must be on top
- ▶ Use as much or as little of the kit
- ▶ Break up the spaghetti, string or tape
- ▶ The Challenge lasts 14 minutes

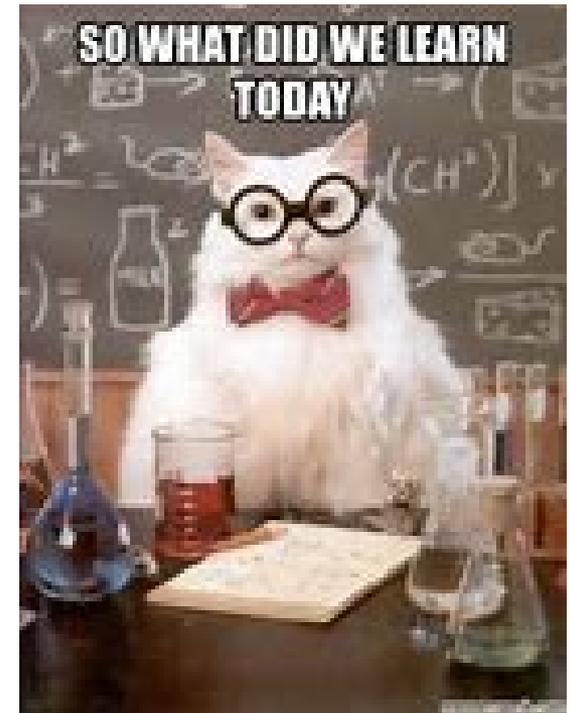


# What did you learn?



# Lessons Learned

- ▶ Identify implicit assumptions
- ▶ Planning is important
- ▶ At some point, we need to DO!
- ▶ Try things until they work



# Lessons Learned



Business Graduate  
Students



Kindergarten  
Students

# Agenda

- ▶ Introduction
- ▶ Data-driven decision making
- ▶ Quality Improvement Tools
  - Marshmallow Challenge
- ▶ **Take-home messages**



# Impact

- ▶ Where can we make the most impact for our students?
  - Basic Perkins Application
  - Performance Improvement Plan
  - Redistribution

**MAKE AN  
IMPACT**



# Take-Home Messages

- ▶ Commit to a data-driven, career-aware approach to education
- ▶ Consider creating lifelong learners that have a purpose and a choice on their learning:
  - Know their heart and do what they love
  - Use their imagination
  - Ask questions
  - Work well in teams
  - Contribute to society



# Data and Program Improvement

## ► 12a: Retention and Completion

<b>Level 1</b> <b>Little or No Development and Implementation</b>	<b>Level 2</b> <b>Limited Development or Partial Implementation</b>	<b>Level 3</b> <b>Operational Level of Development and Implementation</b>	<b>Level 4</b> <b>Exemplary Level of Development and Implementation</b>
<p>Retention: Less than 50% of the students entering the CTE program continue past the foundation course.</p> <p>Completion: Less than 50% of the students completing all requirements of the program as defined by PED CCRB performance measures target methodology.</p>	<p>Retention: Approximately 60% of the students entering the CTE program continue past the foundation course.</p> <p>Completion: Approximately 60% of the students completing all requirements of the program as defined by PED CCRB performance measures target methodology.</p>	<p>Retention: Approximately 70% of the students entering the CTE program continue past the foundation course.</p> <p>Completion: Approximately 70% of the students completing all requirements of the program as defined by PED CCRB performance measures target methodology.</p>	<p>Retention: Approximately 80% or more of the students entering the CTE program continue past the foundation course.</p> <p>Completion: Approximately 80% of the students completing all requirements of the program as defined by PED CCRB performance measures target methodology.</p>

# Data and Program Improvement

## ► 12b: Data-Driven Decision Making

<p><b>Level 1</b>  <b>Little or No Development and Implementation</b></p>	<p><b>Level 2</b>  <b>Limited Development or Partial Implementation</b></p>	<p><b>Level 3</b>  <b>Operational Level of Development and Implementation</b></p>	<p><b>Level 4</b>  <b>Exemplary Level of Development and Implementation</b></p>
<p>The CTE continuous program improvement process is described in writing and has been partially implemented.</p> <p>The continuous program improvement process is used to identify emerging industries and changes in industries for addition and revision of CTE course offerings.</p>	<p>The continuous program improvement process uses selected student and performance data to make program improvement.</p> <p>Assessment of CTE program design components is used for program improvement.</p>	<p>The continuous program improvement process is fully implemented and regularly utilizes student and performance data to make program improvement.</p> <p>The continuous program improvement process involves external and internal support to assure CTE programs are relevant to meet the needs of students.</p> <p>The continuous program improvement process includes a long-term professional development plan that addresses areas of need and individual professional growth.</p> <p>The continuous program improvement process reflects changes in technology, employment and educational reform.</p>	<p>An integral part of the continuous program improvement process is the use of all data and written feedback gathered from the advisory committees, teachers, students, and community partners.</p> <p>The continuous program improvement process is viewed as critical for program sustainability and appropriate funding is targeted to assure completion of the process.</p> <p>The continuous improvement process views a comprehensive professional development process as fundamental to program improvement.</p> <p>The continuous program improvement process incorporates effective practices and current research.</p>

# Questions



# Help Us Get Better

## Perkins Application Workshop

survey

thank  
YOU  
SO MUCH  
😊