Activity Handout

Activity: Root Cause Analysis

Purpose

RCA is a process to uncover the deepest underlying causes of a problem, that if dissolved, would eliminate or substantially reduce the problem area. At this stage in the CIM process, the CIM team has identified several data-based problem areas during Step 1 activities. When tackling complex problems, it is critical to get as close to the problem as possible to uncover the practices, relationships, and beliefs that hold this problem in place. For an introduction to Root Cause Analysis watch the "What is Root Cause Analysis" Training Video

Instructions

1. Preparing for Root Cause Analysis: Prior to beginning Root Cause Analysis it is important that the CIM team has identified a prioritized problem area. (Intensive Levels 1-3 and Targeted Level 3 LEAs prioritized during the consolidation and prioritization activities). To help structure prioritization of the various problem areas identified in Step 1, the team can use any of the following resources. .

    a) Prioritization Protocol: Once the team has identified several problem areas, this tool can be used to prioritize problem areas from lowest to highest priority.

    b) Priority Matrix: The priority matrix is another tool that can be used to prioritize identified problem areas based on various values such as effort and impact.

    c) Priority Matrix Training Video: Watch this video for more guidance on using a priority matrix to prioritize problem areas and select one to focus on.

2. Conducting the Root Cause Analysis: Now that the team has identified the problem area of highest priority, they are ready to begin Root Cause Analysis. Follow the process below to conduct the team's root cause analysis. Under each phase of this process is a list of steps and resources that can be utilized to support the team in conducting a thorough Root Cause Analysis.

    a) First, clearly define the problem by writing a problem statement. Problem statements clearly define the area the root cause analysis will be conducted on. To help the team draft a problem statement, watch the **Problem Statement Video**. (Intensive Levels 1-3 and Targeted Level 3 LEAs drafted a problem statement during the consolidation and prioritization activities).

    b) Next, the team will document what they already know about the problem area and what initial explanations they have for why this problem is occurring. The team will also determine what

methods are needed to collect additional data to validate or invalidate their explanations. To help the team structure this process, follow the steps below:

Watch the **Launching Your Root Cause Analysis Investigation** video to learn more about launching your Root Cause Analysis Investigation including using **a Root Cause Analysis Plan**.

Use the **Root Cause Analysis Plan** to plan the team's root cause analysis process including investigation questions, methods, predictions, plans and findings from the team's root cause analysis.

Utilize the **Root Cause Analysis Inquiry Guide** to help identify key questions and methods to include in the **Root Cause Analysis Plan.**

c) Then, the team will conduct their investigation. Using the **Root Cause Analysis Plan** as a guide, utilize various methods to dig deeper and validate or invalidate potential causes. Recommended methods include:

Additional Quantitative Data Analysis: Use ordered bar charts and Pareto Analysis to analyze various causes. To learn more view **Ordered Bar Charts and Pareto Analysis: Understanding Variation for a Point in Time**

Process Mapping: Use this tool to create a window into the day-to-day work of systems. Create process maps to document and analyze various processes in your system (i.e., classroom, administration, financial, maintenance, support and/or data). To get started with process mapping view **Introduction to Process Maps** and **Seeing Inside the System: Process Maps in Action**.

Empathy Interviews: Empathy interviews seek to gain the perspective of users in your system (those closest to the problem) including their expressed and underlying needs. **Watch How to Conduct Empathy Interviews** for guidance on planning and conducting empathy interviews.

5 Whys Protocol: Use this protocol to quickly cut through the outward symptoms of a problem to reveal its underlying causes and reach a shared understanding of the cause of the problem. This protocol is most useful when considering simple to moderate problems.

Fishbone Diagram: This diagram is used as a visual tool to look at cause.

d) Last, the team will summarize the findings of their Root Cause Analysis. Teams can summarize findings using the summarizing protocol and/or Root Cause Analysis Plan.

Root Cause Analysis Summarizing Protocol: This protocol utilizes a summary worksheet that guides teams through a review of data gathered and identification of suspected root causes.

Document findings in the findings section of the **Root Cause Analysis Plan**

3. Prioritizing Root Causes: Once the root cause analysis is complete and findings have been summarized, it is necessary to prioritize the validated root causes so teams are able to focus on addressing the most important root cause(s) first. The team will identify 1-3 prioritized root causes. To help structure prioritization of root causes, the team may use any of the following resources:

a) <u>**Prioritization Protocol:**</u> Once the team has synthesized and summarized root causes, the Prioritization Protocol may be used to prioritize root causes and determine where to focus collective efforts and resources.

b) <u>**Priority Matrix:**</u> The priority matrix is another tool that may be used to prioritize identified root causes based on various values such as effort and impact.

c) <u>**Priority Matrix Training Video:**</u> This video provides additional guidance on using a priority matrix to prioritize root causes.

Resources

<u>5 Whys Protocol</u>
<u>Fishbone Diagram</u>
<u>How to Conduct Empathy Interviews</u>
<u>Introduction to Process Maps</u>
<u>Launching Your Root Cause Analysis Investigation</u>
<u>Ordered Bar Charts and Pareto Analysis: Understanding Variation for a Point in Time</u>
<u>Priority Matrix</u>
<u>Prioritization Protocol</u>
<u>Priority Matrix Training Video</u>
<u>Problem Statement Video</u>
<u>Root Cause Analysis Inquiry Guide</u>
<u>Root Cause Analysis Plan</u>
<u>Root Cause Analysis Summarizing Protocol</u>
<u>Seeing Inside the System: Process Maps in Action</u>
<u>"What is Root Cause Analysis" Training Video</u>