PHRED's Toyota Foundations

Having worked with Toyota Motor Manufacturing Kentucky from 1997-2001, Toyota's Practical Problem Solving (PPS) methodology served as the foundation for the development of PHRED software. PHRED was created to replicate the reflective learning system established at Toyota, but without the historically extended individual development cycle.

PHRED's innovative system guides users through a rigorous process to identify root causes and implement permanent solutions. The software highlights these Toyota principles:

- Fact-Based Approach: Toyota's PPS emphasizes a fact-based approach, contrasting with the brainstorming-focused methods common in the West. PHRED also uses this approach by guiding users to document "What is Actually Happening" based on first-hand observation, versus "What Should Be Happening," based on the standard.
- Genchi Genbutsu: The core concept of Toyota's PPS, "Genchi Genbutsu" (go and see firsthand), is reflected in PHRED by prompting users to make direct observations and gather data at the source of a problem.
- Question-Based Reasoning: Toyota's PPS uses a question-based reasoning approach to elicit and share knowledge. PHRED also employs this method by using a series of questions to guide users through the problem-solving process, encouraging reflection and deeper understanding. The questions are designed to make the user's reasoning explicit, which aids in knowledge transfer.
- Standardized Process: Toyota's PPS utilizes a standardized process where problems are defined as miniature projects that progress from identification to a permanent countermeasure. PHRED mirrors this by guiding users through a structured process, which can be based on 8D, A3, or other methodologies.
- Focus on "Why?": Toyota's approach uses the "5 Whys" to find the root cause of a problem. PHRED also incorporates the 5 Whys technique to help users dig deeper and identify the fundamental causes of issues.
- Knowledge Sharing: Toyota's PPS is designed as a system for creating, conserving, and sharing knowledge. PHRED's database and reporting tools support this function by making knowledge from past problems accessible to all users. The system also enables collaboration between users, further promoting knowledge sharing.
- Emphasis on Reflection: In Toyota's PPS, team members create formal reports on their activities that are then reviewed and revised to increase learning. PHRED facilitates this with automated reports and charts so information can be easily shared and learned from.
- Neutral Reasoning: Both Toyota's PPS and PHRED emphasize a neutral, fact-based environment for problem solving. This helps avoid conflicts arising from egos and opinions, focusing the conversation on facts and logic.

With PHRED, your organization can expect:

- Faster Resolution of Problems: Improve efficiency and productivity by quickly identifying and addressing root causes.
- Reduced Downtime and Waste: Minimize production disruptions and material waste by preventing recurring issues.

- Increased Employee Engagement: Empower your workforce to take ownership of problem-solving, leading to greater job satisfaction and process improvement.
- Improved Knowledge Retention: Capture and share valuable problem-solving knowledge, creating a sustainable culture of continuous improvement.