Lessons Learned
A Value Added Product of the Project Life Cycle

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Agenda

- Introduction
- What are Lessons Learned?
- Value to the Project Process and Organization
- Keane’s Approach to Lessons Learned
- Keys to the Value
- Sample Lessons Learned Report
- Questions
What are Lessons Learned?

- Knowledge or understanding gained by experience
- May be negative/adverse experience or positive experience
- Significant, valid, applicable to the project/effort
- Are not standard business process or practice
Let’s Look at an Example

- A company's planned launch of the space shuttle was set for April 1st. During the pre-launch servicing stage, workers inspected and tested the Orbiter wiring.
During the testing, a system malfunction occurred. Upon examination, the team discovered a short circuit in the wiring, which caused the malfunction. A complete system rewiring would be required. This procedure could significantly delay the project, since the wiring would have to be ordered from a specialty supplier in Europe.
Solution

- The project team and shuttle crew met to discuss this dilemma.
- The team decided to increase the number of project workers. This would allow the rewiring to be completed while continuing with the remaining pre-launch servicing and testing.
- The parts would be installed as soon as they arrived and the target launch date could still be met.
So, What Were the Lessons Learned?

- Detection of the root cause for the schedule variance: installation timing of parts from supplier
- Approved corrective action: adding resources
Determining Lessons Learned

- Determine if occurrence is a repeat
- Evaluate for relevance to the project
- Analyze for root cause
- Evaluate for impact
- Develop recommendations, solutions
- Summarize
- Disseminate and store information
Common Root Causes Resulting in Lessons Learned

- Making assumptions
- Accounting for uncontrollable elements
- Planning mistakes such as miss-stated margins of risk and resource needs
- Completing the requirements process
- Understanding and communicating the impact of change
Value to the Project Process and Organization

- Promote improvement and process maturity
- Reduce risk with mitigation
- Identify common best practice
- Subject matter experts (SME)
Indications for Lessons Learned

- Immature processes
- Inexperienced or changing team
- High risk
- High impact deliverables
- Long project life cycle
- Complicated project
Results of the Shuttle Example

Lessons Learned

- Future shuttle projects
  - Consider extra parts on hand
  - Consider alternates to wiring solution
  - Add inspection and testing tasks earlier in the schedule
  - Address slack in the schedule

- Organization
  - Consider the value/risks of the program
  - Consider funding research for alternative technical solutions
Approach to Lessons Learned

- Include lessons learned from the project planning phase through project completion
- Educate project sponsor and stakeholders on the value of lessons learned
- Promote process improvement through launching the next step after lessons learned reporting
Lessons Learned In The Project Life Cycle

**Project Phase**

- Plan
  - Obtain support for lessons learned activity from the project sponsor/owner
  - Include lessons learned in Statement Of Work & Schedule
  - Collect previous relevant lessons learned

- Initiate
  - Include lessons learned process & value in team & stakeholder on-board

- Execute
  - Record issues & action items
  - Record lessons with off-board of project team & stakeholders

- Close
  - Collect issues, action items, lessons learned input from off-board records
  - Hold lessons learned work session
  - Produce lessons learned report
  - Communicate lessons learned results

- Post Close
  - Store, manage & mine lessons learned data for learning & development, process & business improvement
Plan

- Need sponsor support for lessons learned activity
- Include lessons learned activity in the statement of work and project schedule
- Collect previous related lessons learned
Initiate

- Include lessons learned training with on-board of project team and stakeholders
- Assign roles for recording lessons learned activity
- Share previous lessons learned
- Communicate how lessons learned are measured
Execute

- Record issues & action items
- Hold lessons learned evaluation as determined relevant
- Record lessons learned input in interviews with early off-board of project team & stakeholders
Closing

- Act during and directly after the project
- Collect project records of issues, action items, lessons learned input from off-board
- Collect all input unbiased and not filtered
- Validate and normalize data
- Hold lessons learned work session
- Produce lessons learned report
- Communicate lessons learned result
Project Closing Workshop

- Neutral environment promoting input
- Ensure participation of key stakeholders and SMEs
- Follow best practice for successful workshops and good conduct
- Focus on the project
- Work as a team
- Assign roles
- Give credit where due
- Narrow in on high value lessons
Post Closing

- Report on lessons learned
- Archive lessons learned
- Record and store non-relevant input
- Record action taken on lessons
- Mine the lessons data for future projects
Lessons Data Storage and Mining

- Store lessons learned reports in file share
- Create lessons index database
- Mine the lessons data with various reporting applications
Keys to Obtaining the Value

- Identifying lessons through strong critical thinking skills
- Developing improvement recommendations
- Communicating
- Recording and storing lessons data
- Using the stored lessons data
- Measurable lessons learned process
Critical Thinking Skills

- Independent thinking, fair-mindedness
- Macro cognitive abilities/strategies
  - Critical listening
  - Clarifying and analyzing
  - Identify the root cause of an issue with deep significant questions
- Micro cognitive skills/strategies
  - Evaluate and examine assumptions
  - Facts vs. perception
  - Relevance vs. irrelevance
Questions and Discussion