AASHTO Agency Administration Conference

KNOWLEDGE INTERVIEWS (KMI) AT TXDOT – CAPTURING YOUR DOT’S INTELLECTUAL CAPITAL AND LESSONS LEARNED

Benjamin Anyacho, MBA, PMP
TxDOT—Strategic Planning Division

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Learning Objectives

- How to plan, capture, retain, and share employees’ critical knowledge—experience, skills, and wisdom in the organization through Knowledge Interviews
- Explore how to grow and sustain Knowledge Interview program
- Identify the purpose, how to capture, share, and retain lessons learned and “stop reinventing the wheel!”
- Translate lessons learned into Living SOPs
Capturing Knowledge at TxDOT

- KM Executive sponsor: Darran Anderson, TxDOT Director of Strategy and Innovation
- KM Sponsors: Kent Marquardt (Director of Strategic Planning Division) and Chris Young (Director of Workforce Development)
- Knowledge Interview Pilot program (12 sample size knowledge interviews)
- Completed 5 Knowledge Interviews
- About to complete 7 more interviews
- Developed Knowledge Interview guide and process
- Benchmarked with WSDOT, VDOT, and KM industry
- Lined up 18 more interviews after the pilot
- Lessons Learned, after action reviews, and exit interviews are common practices
Definition of Knowledge Interview

**Knowledge Interview** (KMI) is a Knowledge Management technique for capturing, retaining, sharing, and storing explicit and tacit knowledge, most critical organizational knowledge assets—intellectual capital—held captive in the minds of individuals.

**Best Practice:** Conduct KMI now rather than when an employee is about to leave the organization; it’s voluntary.

- A collection of KMI s, which could be in multiple formats—audio, visual, or paper, may become the content of an enterprise Knowledge repository
- Indexed, cataloged, and searchable for common leadership traits, thoughts, and characteristics
- We can share, store, and reuse captured knowledge for the creation of new knowledge.
- KMI could be a handy tool for new employee orientation and potential use for leadership development.
Timing

KMI may be taking place because
- The interviewee (Knowledge Worker) is leaving
- KW has become an expert possessing knowledge that others require to do their works
- Of building a searchable knowledge repository for leadership development

Lessons learned is conducted throughout the lifespan of the project or program
KMI and Lessons Learned through Knowledge Management

- Capture, Share & reuse knowledge from experience
- Promote best practice
- Repeat or recurrence of desirable outcomes
- Expert judgement tool for Bench strength
- Retention of institutional knowledge and critical skills
- Better decision making capabilities
- KMI may be taking place because the interviewee is leaving, or has become an expert possessing knowledge that others require.
Facts

- 91% of Project Managers believe that Lessons Learned reviews on projects were important, only 13% said their organizations performed them on all projects and only 8% believed the primary benefits of LL reviews – Ernst & Young (2007)

- US organizations waste $109 million for every $1 billion invested in programs and projects (“PMI’s Pulse of the Profession, 2015”)

- Only a third of all projects were successfully completed on time and on budget over the past year (Standish Group’s CHAOS report)
Critical Steps

- Develop an interview plan and identify Knowledge Architecture—who, when, why, how, and what
- Identify who has critical knowledge assets or knowledge architecture (Information Architecture + Knowledge Assets + Data Science = Knowledge Architecture)
- Secure buy-ins of all stakeholders
- Consider who currently accesses the person's knowledge/experience
- You may involve KW’s supervisor or chief in the selection of questions for the interview
- The best practice is to perform KMI by more than one person, with KW's supervisor or peer present
- The KW will validate the final summary of the interview
Important Requirements

- **Focus** on mission-critical questions
- **Focus** on not readily accessible knowledge
- **Focus** on rare or unique knowledge
- **Focus** on stabilized knowledge
- **Use** clear, concise language that is easy to understand over time
- **Format** KMI so it can be captured in a database
- An audio recording may be converted to Oral History
- **Identify** common leadership traits, thoughts for divisions/districts, in addition to unique ones from the interview answers
- **Develop or begin to build** word pictures, knowledge leadership development
- **Convert** KMI to an enterprise database of knowledge
- **Spell** out acronyms
- **List** the titles of specific persons named (Benchmarked with WSDOT and VDOT)
Knowledge capture exercise lasts for **three 2-hour sessions or** between 2-4 hours, depending on the bandwidth of the participants.

- For tacit knowledge, we shall review and capture the critical tasks of the KW.
- How to go about those tasks and the needed knowledge.
- Ask for a 'walk through' to identify success stories and success factors, problems and pitfalls.
- Identify knowledge sources (persons, networks, and contacts), etc.
- Experience gained over the years, templates, checklists, working documents, guides, do and don'ts, etc.
Possible Reward and Incentives (only a proposal)

- KW may be listed as an expert contributor in an enterprise Knowledge Repository or Wiki may be listed as an expert contributor to an enterprise Oral history library if he/she chooses an audio and visual format
- One hour compensatory/performance leave time for everyone hour invested in the KMI process up to 16 hours
- Recognized as a task towards job performance evaluation
- Certificate of achievement by the KW’s chief as a knowledge worker
- Recognition before peers
- Choice of equity adjustments, reclassifications, an offering of training and certification that the KW wants, flexible working arrangements, or support to attend conferences
DEFINITION MODEL

Legacy Model
- Sessions held during project close-out
- Documented as a project specific deliverable

Current Model
- An on-going activity conducted throughout the life cycle of the project
- Does not point fingers at anyone, analyzed and validated by subject matter experts (SMEs)
- Focuses on both the successes and the opportunities
- Aligns with project management processes and knowledge areas, institutionalized
- Must perennially become an organizational process asset and part of the processes and procedures for future projects.
Knowledge Interviews (KMI) at TxDOT – Capturing your DOT’s Intellectual Capital

- Improved overall performance
- Reduced Cost
- Managed Scope
- Improved Quality
- Saved Time
- Innovation

Knowledge
- Soft Skills
- Positive Risk: Best Practice
- Negative Risk: Reduce wastage
- Expert Judgement
- Mentoring
- Community of Practice
- Body of Knowledge

Lessons Learned

Evolution of Lesson Learned

Integrate

Value
### Lessons Learned

#### Project: PMP Certification Program

<table>
<thead>
<tr>
<th>Issue Name</th>
<th>Issue Name</th>
<th>Problem/Success</th>
<th>Impact</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resource Management</td>
<td>Mentoring/</td>
<td>All participants had a mentor and a coach</td>
<td>Initially, mentoring was not enough. So, we assigned coaches that coached the applicants through their PMP application process. There was a 100% acceptance of PMP application by participants because of mentors and coaches.</td>
<td></td>
</tr>
<tr>
<td>Stakeholder Management</td>
<td>Buy in and</td>
<td>Problem of securing an enterprise buy-in and continued engagement of complex stakeholders.</td>
<td>There was buy-in of all major stakeholders at pre-charter and continued engagement throughout the project. Participatory ownership was employed</td>
<td>Always utilize effective stakeholder management strategies in managing stakeholder engagement</td>
</tr>
<tr>
<td>Risk Management</td>
<td>Assumptions</td>
<td>Assumption analysis was used as a tool in identifying and analyzing all risks throughout the project. All risks were dealt with head on!</td>
<td>All risk were mitigated because there was a proper risk response plan that was followed</td>
<td>Assumptions must consider all constraints and mandatory and discretionary dependencies—continuous throughout the project lifecycle. Always consider external impacts on the project cost and schedule.</td>
</tr>
<tr>
<td>Quality Management</td>
<td>Content-Rich L-n-L</td>
<td>2-Hour Lunch n-Learn turned out to be a very rich experience compared to original 3 day eight-hour classes.</td>
<td>The content covered in the 2-hour Lunch-n-Learn was very rich and participants learned a lot. A process for determining acceptable program quality was planned into the project.</td>
<td>Shorter classes, developed with TxDOT examples with very rich content and experience are more productive than longer classes.</td>
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</tbody>
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**Results of applying lessons learned:** 24 certified PMPs in 6 months, all application submitted and accepted on time; 97.8% customer satisfaction
“The “learning” part only comes when the lesson has been institutionalized (e.g., changing a policy, writing a procedure, revising a standard, issuing a new specification, improving a work process, etc.)”—Mark Marlin, PMP, Sr. Vice President of Westney Consulting Group,
1. Financial Reporting: LL assisted division to
   - Develop processes and procedures to systematically analyze and accounts in real time and avoid inefficient adjustments or revisions
   - Reduce the chance for audit findings
   - Improves financial reporting for the Division and agency

2. Financial Management Desktop Procedure and Repository: LL enabled AP Managers
   - Identify the need to create a repository of procedural documents for use in the training of new staff, as a reference for tenured staff
   - Documentation of the step by step instructions needed to carry out the various aspects of the day-to-day functions of the AP offices
   - Procedure was tested, passed, and was published in Desktop Procedure on the FIN website for use by all staff
   - Has greatly benefited Financial Management Division and staff as a KM tool
   - Delivers clear concise instructions allowing for the dissemination of knowledge in a standard, easily searchable format that can be accessed for years to come
   - Etc.
TAKE-AWAYS

Knowledge Interviews & Living Lessons Learned - Best Practice Program for KM

- Make Accessible - to other projects; - easy to handle for lessons-learned-writer and -reader
- Hyperlink
- Fully searchable
- Formattable w links & attachments

- Realistic and Objective: draw on both positive and negative experiences

- Institutionalize, share captured knowledge
- Community of Practice and SME validation
- Publish in a central repository - Wiki
- Involve Stakeholders
- Initiate a feedback and ownership process
- Act Quickly

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Questions & Answers

- Benjamin Anyacho, MBA, PMP
- TxDOT—Strategic Planning Division
Lessons Learned

Reference