SCAMPI Lead AppraiserSM Body of Knowledge (SLA BOK) Overview

Software Engineering Institute Carnegie Mellon University Pittsburgh, PA 15213

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Purpose of this presentation

Provide an overview of the SCAMPI Lead Appraiser Body of Knowledge

- Objectives
- Development Approach
- Planned Uses
- Architecture and Content

Avoid people having nightmares about the SLA BOK

Not intended to bludgeon or punish people

Author Team and Advisory Board

SEI Author Team

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SLA BOK Advisory Board

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- Rick Hefner
- Jacques Joubert

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- Ron Lear
- Larry McCarthy
- Alice Parry
- Lynn Penn
- Henry Schneider
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Topics of this presentation

What the SLA BOK is (and is not)

Development process

Uses of the SLA BOK

SLA BOK architecture

Next steps

What the SLA BOK Is

The SLA BOK is a multi-dimensional view of the competencies and skills needed to be an effective and successful SCAMPI A Lead Appraiser.

- Codifies what Lead Appraisers have been doing
- Intended to document explicitly much that has been implicit for many years

What the SLA BOK is not

The SLA BOK is not

- An articulation of detailed CMMI® practice requirements (it does not replace the CMMI model)
- A definition of the requirements for conducting a SCAMPI A appraisal (it does not replace the SCAMPI MDD)
- A detailed reference on the theory and concepts underlying High Maturity practices
- A definition of competencies required for process improvement consulting or organizational change management

Audience for the SLA BOK

Two primary audiences exist:

- SCAMPI Lead Appraiser community
- SEI Appraisal Program development team

Other audiences include stakeholders in SCAMPI Appraisals:

- Sponsors
- Appraisal Team Members
- Other appraisal participants

SLA BOK Development Process

Kick-off event was a SLA BOK Workshop held in Pittsburgh during February 2007.

- Entire Lead Appraiser community was invited, approximately 60 came and participated.
- Six working groups met and drafted an initial set of competencies.

The SEI author team analyzed the inputs, produced a Developers Baseline, and sent it to all Workshop participants (and some others) to review.

Based on the comments received, the SEI author team produced a Stakeholders Baseline that was sent to all SCAMPI Lead Appraisers, Team Leaders, and candidates for review and comment.

Based on the comments received, the SEI author team produced the final Technical Report, CMU/SEI-2007-TR-019.

SLA BOK Uses, in conjunction with the Competency Lifecycle Framework (CLF)

Serves as the foundation for Lead Appraiser certification process by

- selecting and prioritizing competencies that are suitable to measure through a written examination
- guiding the writing and validating of questions, and supporting the identification of test coverage requirements

Serves as the basis for integrated Lead Appraiser curriculum and training development.

Serves as the basis for updating the Lead Appraiser observation worksheet, along with guidelines and criteria for observations.

Aspiring Lead Appraisers can use the SLA BOK to understand what is expected of them.

Current Lead Appraisers can find areas for professional development.

Relationship of SLA BOK to Predecessor Documents

Competency Lifecycle Framework (CLF)

- Competency Clusters are derived from the CLF document.
- Competencies in SLA BOK will be allocated to different stages in the Lifecycle (some are to be demonstrated as pre-requisites, others taught during training, or demonstrated/measured during training, etc.).

Method Definition Document (MDD)

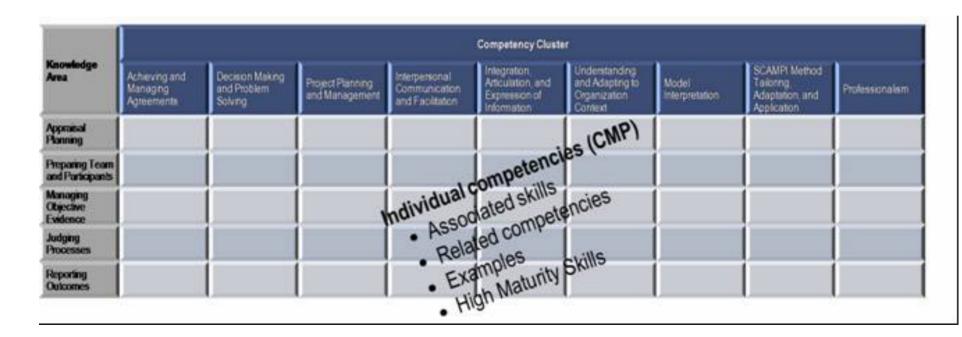
- Knowledge Areas are derived from MDD activities.
- Only the MDD defines SCAMPI method requirements; nothing in the SLA BOK supersedes the MDD.

CMMI-DEV Model

 Only the CMMI-DEV Model defines the model requirements and expectations; nothing in the SLA BOK supersedes the CMMI.

Architecture of the SLA BOK

- Horizontal axis shows Nine Competency Clusters.
- Vertical axis shows Five Knowledge Areas (based on MDD activity phases).



CLF Competency Clusters

CC1: Achieving and Managing Agreements

CC2: Decision Making and Problem Solving

CC3: Project Planning and Management

CC4: Interpersonal Communication and Facilitation

CC5: Integration, Articulation, and Expression of Information

CC6: Understanding and Adapting to Organizational Context

CC7: Model Interpretation

CC8: SCAMPI Method Tailoring, Adaptation, and Application

CC9: Professionalism

Overview of Knowledge Areas

KA1: Appraisal Planning

• Includes MDD activities 1.1.1 – 1.1.5, 1.2.1 – 1.2.6

KA2: Preparing Team and Participants

Includes MDD activities 1.3.1 – 1.3.3, 1.5.1, 2.1.1

KA3: Managing Objective Evidence

Includes MDD activities 1.4.1 – 1.4.2, 1.5.1 – 1.5.3, 2.2.1, 2.2.2, 2.3.1 – 2.3.4, 2.4.1

KA4: Judging Processes

Includes MDD activities 2.4.2, 2.5.1, 2.6.1 – 2.6.4

KA5: Reporting Outcomes

• Includes MDD activities 3.1.1 – 3.1.3, 3.2.1 – 3.2.4

Architectural Components of the SLA BOK

Competencies (CMP)

One or more within each cell of SLA BOK matrix (except one)

Associated Skills

 One or more under each Competency, to explain or illustrate what a Lead Appraiser is expected to be able to do

High Maturity Skills

Under some Competencies, skills specific to high maturity appraisals

Examples

Real-world contexts to help describe or clarify some Competencies

Related Competencies

Under many Competencies, pointers to associated Competencies

Suggested Readings

Under each Competency Cluster, a list of suggested references

A Sample Competency (1 of 3)

CMP 5.5.2 Delivering appraisal results

Associated Skills

- Clearly explaining weaknesses and strengths
- Presenting the final findings in a professional and credible manner
- Ensuring that stakeholders know who owns the appraisal results and the restrictions on their use
- Explaining results in detail and answering questions regarding the basis for given characterizations or ratings

High Maturity Skills

 Explaining results in detail and answering questions regarding the technical basis for given characterizations or ratings of the high maturity practices and goals

A Sample Competency (2 of 3)

Related Competencies

- CMP 4.5.1, Delivering positive and negative information with credibility and professionalism
- CMP 4.5.2, Managing the final findings presentation
- CMP 6.5.1, Addressing inconsistencies between the OU's expectations and outcomes
- CMP 6.5.2, Accommodating the local culture when reporting outcomes
- CMP 6.5.3, Determining the most effective means of delivering results
- CMP 6.5.4, Recommending next steps for process improvement to the OU
- CMP 8.5.1, Completing the Appraisal Disclosure Statement (ADS)

A Sample Competency (3 of 3)

Examples

 If a Lead Appraiser is performing a SCAMPI on an OU that primarily builds hardware and its appraisal participants want to use the word "interface" to describe the boundary between two processes, that Lead Appraiser might want to preface their use of the term so that the OU understands they are speaking about where one process hands off to another process, not the more typical connection between two hardware product components.

Some Key SLA BOK Interpretation Guidelines

The SLA BOK is not a source of SCAMPI method or CMMI-DEV model guidance; it does not supersede the MDD or the Model.

Circumstances of appraisals vary widely; therefore, not all competencies and skills will be exercised on every appraisal.

Every LA should be prepared to demonstrate every competency and skill, should the appropriate circumstances arise.

SLA BOK Use Guidelines

Key SCAMPI terms (appraisal, team, participant, objective evidence, etc.) mean what they mean in the MDD.

Each competency appears in the SLA BOK under one specific Competency Cluster and Knowledge Area; each should be interpreted in the context of the relevant CC and KA.

Each associated skill appears in the SLA BOK under one specific Competency; each should be interpreted in the context of the Competency as well as the CC and KA under which it appears.

SLA BOK Matrix

The SLA BOK matrix, with all Competency Clusters, Knowledge Areas, and top-level Competencies, has been printed as a one-sheet fold-out in the back of the TR.

Some statistics

- Of the 45 cells in the matrix, only 1 has no Competencies identified.
- 105 Competencies have been identified.
- Of these, 9 contain high maturity skills.

The Evolution of High Maturity Skills

With the exception of a few specific skills (mostly related to high maturity model understanding), there are no differences between the competencies needed for high maturity appraisals and the competencies needed for appraisals in general.

- At the workshop: Evolution began with a separate "Judging High Maturity Processes" Knowledge Area.
- Developer review baseline: Analysis led to combining the Judging Processes and Judging High Maturity Processes KAs, and resulted in a few stand-alone High Maturity Competencies and some scattered High Maturity Considerations within other Competencies.
- Stakeholder review baseline: It became clear that every instance of a High Maturity Competency has or should have an ML/CL 2/3 Competency equivalent.
- Final outcome: All Competencies are generally applicable, but a few have High Maturity Skills.

SLA BOK Next Steps

Begin using SLA BOK as the basis for development of a Lead Appraiser Certification Examination.

Make specific determinations of which competencies are to be

- Addressed in pre-requisites (and how measured)
- Taught by the SEI (and how measured in classes)
- Measured in examinations
- Measured in formal observations

Use these determinations to update SLA pre-requisites, training, and observation guidance.

Longer term, potentially expand scope of SLA BOK to cover SCAMPI B&C, CMMI-ACQ and CMMI-SVC, People CMM, and other related areas.

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