

# Instructions for Assessing Problem-Solving A3s (Proposal Stage)

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## Background

Healthcare professionals are now expected to improve the quality of the care they provide. Many healthcare systems and healthcare educators teach Lean Thinking as quality improvement (QI) methodology to their learners. An A3 proposal is a lean practice to summarize and document a problem-solving effort on one page. As the use of “problem solving” A3s increases in healthcare settings, the need is also increasing for a systematic method to assess their quality. Individuals developing A3s need coaching on their problem-solving skills and guidance concerning what information to include. Individuals teaching the use of A3s need to assess and provide feedback concerning the content and quality of information in A3s developed by learners individually or in teams.

**Purpose.** We have designed an assessment tool and supporting materials to provide structured guidance, ratings, and feedback concerning the content and quality of problem-solving A3s. Properties of the assessment tool are being studied with the goal of sharing the tool widely.

**A3s and their authors.** Problem-solving A3s communicate to others the nature of a problem and its importance, current state, root causes, goal for improvement, recommended countermeasures, proposed action plan, and follow up steps.

Authors of A3s may be at any stage of experience in developing A3s. However, the assessment tool will most frequently be used to assess A3s developed by learners in formal training programs. Such programs often require assessment of an individual’s or team’s accomplishment in carrying out a quality improvement (QI) project or QI project proposal. A3s in development can be assessed to provide formative feedback. Completed A3s can be assessed for final or summative evaluation.

**Individuals assessing A3s.** In order to evaluate a problem-solving A3, the assessor needs to understand the principles of Plan-Do-Check-Act/Adjust (PDCA) based problem solving and have experience developing A3s. Also desirable is experience teaching or mentoring others to develop problem-solving A3s.

The assessment tool and associated materials presented here highlight important aspects of developing A3s, but they are not a substitute for a formal introduction into the purpose and development of A3s. Sources for training and general instructional materials for developing A3s are presented below in the A3 Content Guide in the section titled “Resources.”

## A3 Assessment Toolkit

The “A3 Assessment Toolkit” includes six coordinated items: (1) these instructions, (2) A3 template, (3) A3 content guide, (4) A3 assessment tool, (5) description of response options for each item in the tool, and (6) three A3 assessment examples.

**Instructions for assessing A3s at the proposal stage of problem solving.** The instructions that you are reading introduce the purpose of the toolkit and the use of the other components.

**A3 template.** Sections of the A3 template provide a location to organize and highlight key information in the problem-solving process. This template has been adapted from versions in use at the University of Michigan and the University of Pennsylvania, which were adapted from nationally available models (e.g., see Shook, 2008, and Jimmerson, 2007, listed in Resources in the content guide).

The A3 template outlines key information to be rated and a typical order in which information is presented. However, an individual A3 may vary in how its problem-solving story is presented. Assessments do not depend on information order (as long as logic flow is clear), just on whether key information is presented understandably somewhere in the A3.

**A3 content guide.** The content guide describes in more detail the key information to be presented and formats often used to present information. The explanations provide a more consistent, shared understanding of key information and its presentation across A3 authors and across A3 raters.

**A3 assessment tool.** The 23-item tool outlines key information to assess using a simple 4-point rating scale

for each item. The assessment tool focuses on the written A3 as a stand-alone document that anyone can assess without additional contextual knowledge or information.

- A3s are typically the basis for a presentation, discussion, and dialog. However, if the assessor is not present to interact with the author, the document is the only source of information. (If desired, the assessment tool could be applied to information presented both in a written A3 and verbally.)
- While some assessors may have personal knowledge of the actual situation, the assessments focus on information in the document that can be rated without first-hand knowledge of the problem and its context. (If an assessor has personal knowledge of the situation, the assessment tool has 9 supplementary items concerning adequacy and feasibility that may also be rated.)

**Description of rating options.** Items in the assessment tool have four response options. This document describes the meaning of each item's response options. This shared understanding of responses helps provide consistent ratings across individuals and across A3s.

**A3 Assessment examples.** Three "finished" problem-solving A3s, at the proposal stage, and their assessments are provided as examples.

- The first example A3 is thoroughly done. The high quality of the content is reflected in its ratings and explanations for them.
- The second and third example A3s are less complete. The content contains some areas of lower quality. An assessment tool is provided to try out rating the items, then to compare them with the standard ratings and explanations provided.

## Learning to Use the Assessment Tool

Learning about the tool and practicing its use are straightforward.

1. Review the materials. Review the A3 template, A3 content guide, assessment tool, and explanation of item ratings to understand the content to be assessed and the ratings to be performed.
2. Review A3 Example 1 and its ratings. After reviewing the A3, go through each item on its completed ratings and explanations form to understand how each item's rating was determined. Reviewing this well done A3 and its scoring provides a basis for subsequent comparisons when making assessments.

3. Practice using the assessment tool on A3 Example 2 and/or A3 Example 3 (less well done). Review the A3, then download and fill out the rating tool for it. Then compare your ratings with the standard ratings and explanations provided. Review why your ratings may have diverged from the standard ratings, particularly for differences of 2 points or more. (Note: less well organized or incomplete A3s may take a little longer to assess.)
4. Consider using the assessment tool on an A3 with which you are familiar. If you have access to an A3 developed locally, use the assessment tool to rate it. Review your ratings for information content and quality that you have not considered previously.

The learning and practice should help you use the assessment tool to provide ratings of A3s that are reasonably consistent with ratings that others would make. This level of experience should be adequate to differentiate A3s that are of overall low, moderate, and high quality in presenting key information. Additional practice and comparisons with others will likely be needed to rate some individual items consistently.

## Tips

**Some A3s will not address all items listed in the assessment tool.** Even when working from a template, A3 authors may not remember or understand the need to address all of the content, may not have information to address all of the content, or may not be far enough along in their problem investigation to complete the A3. This assessment tool helps teachers and learners of A3 problem solving understand the key content to include. Providing A3 authors with structured feedback regarding this content will help develop their problem-solving skills.

**Relevant information may be located in different sections of an A3.** A3 authors may place relevant information in another section of the A3, most likely in an adjacent section. Also, an A3 may present sections of information in a different order than the order on the A3 template presented here and on the rating tool. If logic flow is clear, consider any information in the A3 when rating an item.

**Assessing a specific A3 will involve some judgement.** Deciding which of two adjacent rating options is most appropriate may be somewhat arbitrary for a specific A3. However, for most purposes a rating in the appropriate range of the rating scale is sufficient.