A3 Problem Solving

A3 problem solving is a method associated with Toyota, in which the whole story of a problem is told on one sheet of A3 paper, which is the size of two A4 pages. The sheet follows the Plan, Do, Check, Act cycle, from the background to the follow-up, and organisations adapt the exact boxes. Writing on one page forces clear thinking, because there is no room for vague ideas. The A3 is also a tool for conversation, since the author discusses it with colleagues and a mentor, as John Shook explains in his book Managing to Learn. We follow Samer, an operations supervisor, as he tackles late deliveries.

1. Background and Current Condition

The first boxes set the scene. The background explains why the problem matters and how it connects to the goals of the business. The current condition shows the facts as they are now, with data, a simple chart or a map of the process. We go and see the real place instead of relying on opinions.

Example: A café owner hears complaints about slow service. The owner uses the background and current condition: she watches the counter for a whole morning and counts that a coffee takes six minutes at the busiest hour. The complaint becomes a clear fact.

At work: Samer writes the background: late deliveries cause complaints and lost orders. Then he records the current condition: last month, 18 of every 100 orders left the warehouse late. He walks through the picking area and sees staff searching for items.

2. Goal and Root Cause

Next comes the goal, a clear target with a measure and a date, such as cutting late dispatches within three months. Then we analyse the causes. A simple tool is to ask why five times, moving from the visible symptom toward the root cause. A cause is a root cause only if removing it would stop the problem from returning.

Example: A runner sets a goal: to finish a 10 km race in under an hour by October, and not simply to get faster. By asking why five times, the runner finds that the real problem is irregular training, not weak legs. The plan now targets the root cause.

At work: Samer sets the goal: cut late dispatches from 18 to 5 of every 100 orders within three months. He asks why five times: orders are late, picking is slow, items are stored in different places, there is no fixed location rule, and nobody owns the layout. The root cause is the missing storage rule.

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3. Countermeasures and Plan

The second half of the A3 starts with countermeasures. A countermeasure is an action aimed at the root cause, and we often list several options and choose the best with simple criteria such as effect, cost and speed. Then the implementation plan says who does what and by when. Involving the people who do the work, and agreeing with them before acting, makes the plan much more likely to succeed.

Example: A family is tired of morning chaos. They use the countermeasure and plan step: they choose to prepare bags the night before, and agree who does what before eight each evening. Because everyone agreed together, everyone keeps to it.

At work: Samer lists three countermeasures: a fixed location for fast-moving items, a new picking route and extra staff. He chooses the first two for their low cost and quick effect, and agrees the plan with the team: who relabels the shelves, and by which date. Because the team helped to design it, they support it.

4. Check and Follow Up

After the actions, we check the results against the goal, using the same measure as before. If the target is met, we standardise what worked and share it. If not, we return to the analysis, because the A3 is a learning cycle. The follow-up section also records what we learned and any open actions.

Example: A student set a goal of reading 20 pages a day for a month. At the end, the student checks the results against the goal: 17 of the 30 days met it. The student follows up by moving reading time to before dinner and tries again.

At work: After three months, Samer checks the results: late dispatches fell from 18 to 4 of every 100 orders. He standardises the storage rule and shares the A3 with the other warehouse. He also records one open action: to review the layout every three months.

Conclusion

In summary, A3 problem solving tells the full story of a problem on one page. We describe the background and current condition, set a goal and find the root cause, choose countermeasures and a plan, and then check and follow up. John Shook's book shows that the A3 is also a way to learn and to build agreement. Used well, it turns a quick fix into a lasting solution.

Sources

- Lean Enterprise Institute: A3 report (Lean Lexicon) – https://www.lean.org/lexicon-terms/a3-report/
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