Adaptive Capacity Labs

Learning From Incidents Assessment

Project Description

If you can maintain and sustain your business' ability to generate deep insights, integrate learning across groups, and disseminate and retain these lessons over time, ***you will evolve past your competitors.***

But how effective are your teams at discovering these insights and making meaningful use of them beyond simple short-term "fixes"?

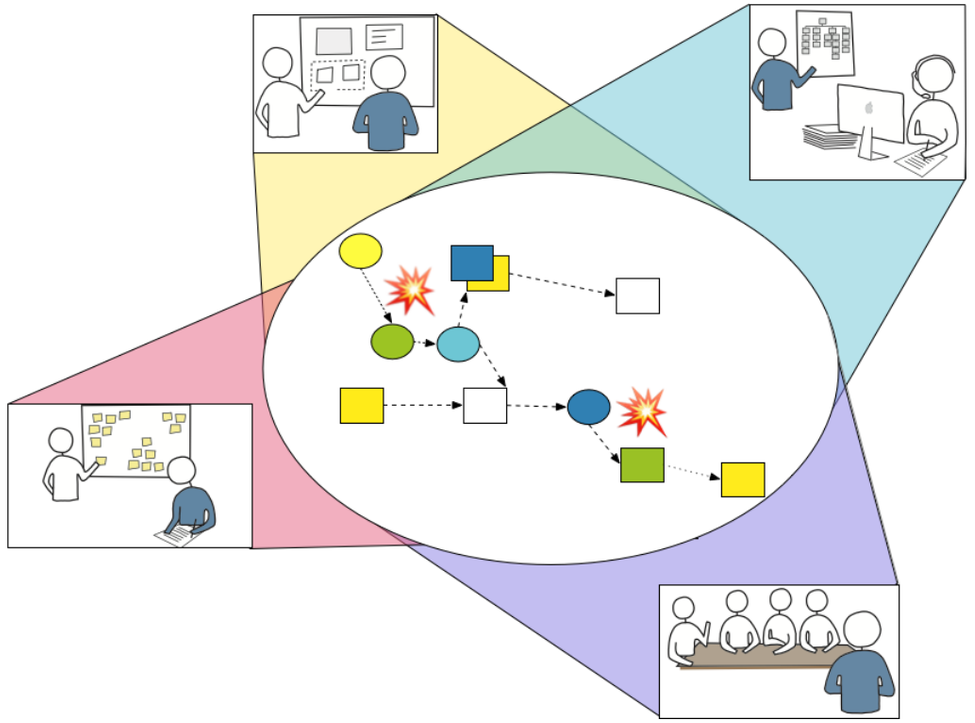
Just as all incidents are unique – so are organizations. Doing an assessment can reveal the *existing sources of resilience* as well as *unknown sources of brittleness* in your organization.

Research from the field of *Resilience Engineering* supports that these sources of resilience and brittleness are *largely hidden* from an organization's internal view. Finding, exploring, and managing them requires expertise and skill with methods that trace, reveal, and map the *cognitive* processes of decision making.

Our team represents over 40 years of experience with these methods in high-tempo/high-consequence domains to improve processes, tooling, and practices.

Incidents can have a significant influence on long-term business decisions, create uneven perceptions of risk across teams, and create barriers to the velocity and robustness of change that a company needs to stay competitive.

Tracing these often invisible influences is part of our assessment.



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Typical Goals, Objectives, and Deliverables

The ***goals*** of an assessment are:

- To assess the organization's current approaches to learning from incidents
- To identify opportunities for the org to improve those methods
- To recommend specific and actionable ways (practices, tooling, etc.) to deepen and broaden learning from incidents

The ***objectives*** of an assessment are:

- To trace and map the after-incident analyses and sharing processes that already exist in your organization
- To identify current sources of insight generation (tooling, practices, capturing esoteric knowledge, etc.) as well as the challenges to generating insights from after-incident analyses
- To identify current positive capacity, obstacles, and constraints on knowledge capture, take-up, and remembering of lessons learned
- To determine the types and range of productive insights that might be added
- To suggest approaches that the organization can use to obtain these insights

The ***deliverables*** of an assessment can include:

- Written summary (~20 pages for a medium-sized group) of the project findings and recommendations
- Presentation of the results with organization's technical and managerial staff
- Bespoke workshop(s) targeted at developing incident analysis, debriefing facilitation skills, and/or other approaches related to human performance
- Written summary and/or recording of this workshop

(Deliverables obviously depend on the specific needs of the client and agreement of the engagement. These are just examples.)

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Process and Scope

The assessment project uses an iterative approach to explore the relationship between incidents, incident responses, post-incident analysis and synthesis, and how the resulting learning is captured and retained across the workplace. The process is case-based and uses incidents as cases. Iteration through these cycles brings the critical elements to the fore quickly and generates focus for identifying the most valuable opportunities for progress.

We typically anticipate four cycles of activity, approximately two weeks per cycle.

Cycle 1

Initial exploration of existing practices and state of learning from incidents.

Cycle 2

Deep-dive on 1-2 incidents, tracing their influence on anticipation/prep for future events

Cycle 3

Focused exploration based on Cycle 2 findings

Cycle 4

Focused exploration based on Cycle 2 & 3 findings, and synthesize results into artifacts and/or training.

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CYCLE 1: EXPLORATION AND MAPPING

The first iteration is used to trace and map the formal, nominal, and typical after-incident analyses and sharing processes across a group of incidents, focusing on recent events.

During this iteration, we review:

- How incidents are identified, managed, and logged
- How the individuals and groups responsible for management analyze, makes sense of, and classify incidents
- How this information flows into formal and informal incident handling systems
- How further investigation and development of countermeasures takes place
- How countermeasures are prioritized
- How these activities vary depending on severity, complexity, and urgency

The result of this work is a map of incident handling and an incident collection that characterizes the recent company experience.

CYCLE 2: DEEP DIVE

Cycle 2 will identify opportunities for a deep look at one or two events, and explore how preparation for upcoming events and future designs are formed. Planning for this activity will occur at the end of Cycle 1.

The results of Cycle 2 will be used to plan the following cycles.

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CYCLES 3 & 4

Detailed planning for Cycle 3 and 4 occurs at the end of Cycle 2.

Some typical candidate areas for attention are:

- What are the current sources of insight and hypothesis generation during and after incidents?
- How are countermeasures developed and chosen?
- Where is the “memory” of important past events?
- What themes are present in (and absent from!) post-incident reviews?
- How does anticipating future events shape the work to prepare for them?
- What can an organization do to build capacity around post-incident debriefings (“post-mortems”)?
- What makes an incident a good case for post-incident review?
- What tools are needed to make post-event reviews efficient?
- What influence (positive or negative) do post-incident review have concerning bringing new employees up to speed with current risks, esoteric knowledge of systems behavior, etc.?
- How does authority and/or responsibility *migrate* in the midst of responding to an incident?

Even though the focus of the project is an *assessment*, this project itself tends to create momentum for change within an organization:

1. Focusing attention on learning from incidents sends a powerful message to the team about the importance of post-incident review.
2. Engagement between ACL and engineering staff in dev and ops will generate interest in related topics, new routes of expression, and energy that can be used to move forward in this area.

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Ongoing opportunities during the project

During the cycles, there might be opportunities to capture data from new incidents. Our continued presence at the company makes it possible to take advantage of these opportunities to observe the response to incidents, the after-incident reactions, the production of specific countermeasures, and the dissemination of lessons learned from these ‘live’ events.

Checkpoints

Naturally, we stay in contact throughout the project with stakeholders. There are usually short progress/ midcourse correction meetings near the end of each cycle. These sessions keep the leadership team up to date on the project.

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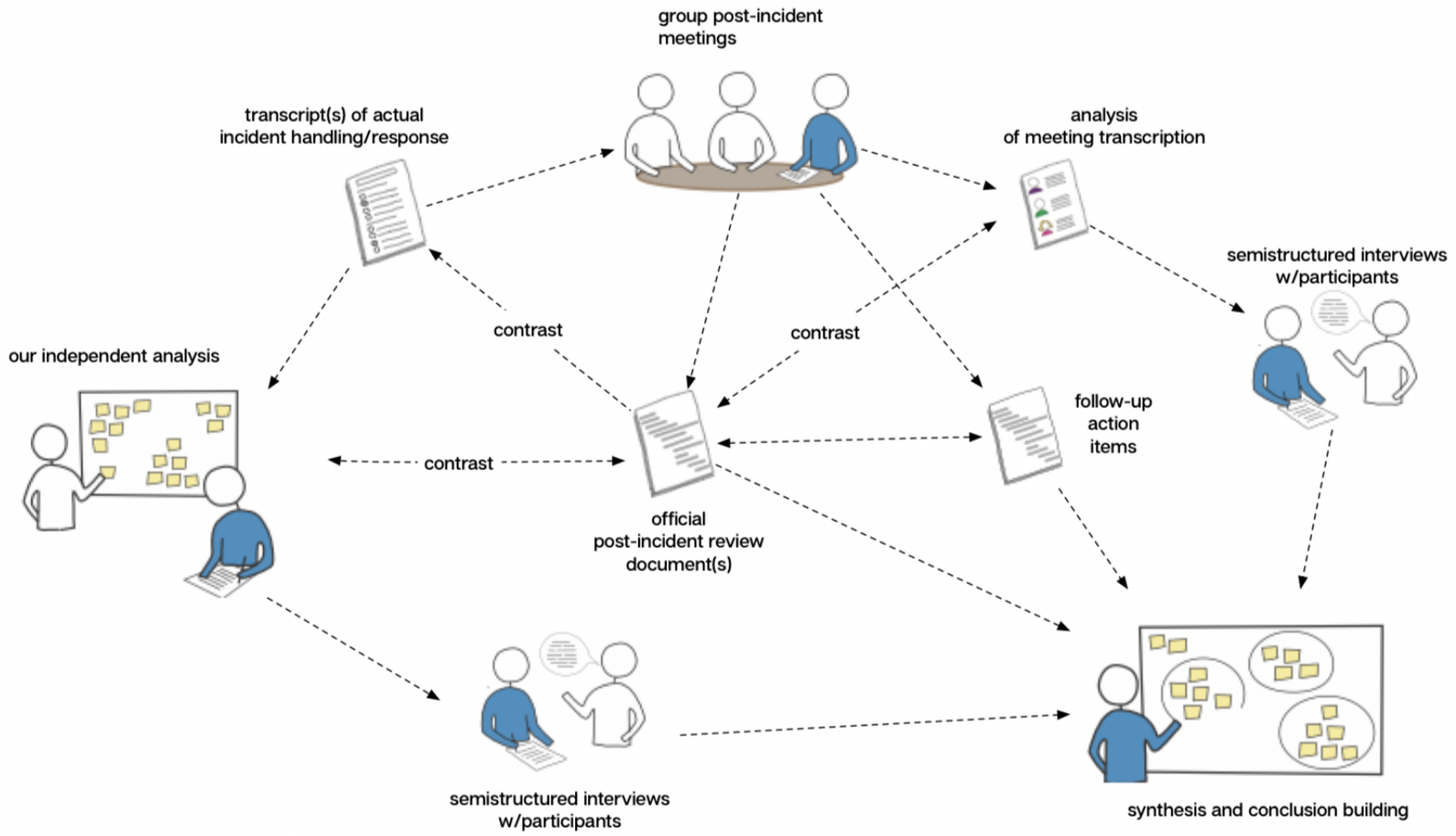
METHODS AND APPROACHES

The methods used in this project have been developed to characterize complex work domains with deep technical structures and high-risk boundaries. The methods draw on carefully developed techniques for the study of real work and tested in aviation, nuclear power, medicine, and military systems.

In this project, these methods reconstruct what people do and say during incidents and also during after-incident reviews. The approach also uses other data collections, including post-incident reports, as probes during interviews.



These methods and techniques build a constellation of qualitative data sources to triangulate and corroborate accounts, perspective, conclusions, and findings. The results are used to then synthesize themes of knowledge, perspectives, confidence, assessments, etc.

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FORMAT OF A TYPICAL LFI ASSESSMENT REPORT

All Assessment projects will have a comprehensive report as part of the deliverables, as well as a presentation of the results of the project to senior leaders of the client organization. While the structure and format of this report is likely to vary based on the needs of the client, a common structure for this document has these elements:

Executive Summary

- Findings
- Opportunities
- Recommendations

Assessment

- Main findings
- Characteristics of incidents and responses
- Post-incident processes
- Positive ingredients to be further supported/amplified
- Other observations

Opportunity Areas

Recommendations

- Principal recommendation
- Additional recommendations
- Potential markers/indicators of progress

Conclusions

Appendices and Supporting Materials

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