

# THE EVOLUTION OF LEARNING IN FIRE & RESCUE SERVICES

## WHY ORGANISATIONAL LEARNING MUST TAKE CENTRE STAGE

In the high-stakes environment of emergency services, learning from experience isn't just beneficial – it's essential. Every incident carries potential lessons that could save lives and enhance service delivery,

yet many fire and rescue services continue to conflate two fundamentally different learning paradigms: Operational Learning and Organisational Learning. Understanding this distinction may well determine which services thrive under increasingly rigorous performance frameworks.

### OPERATIONAL LEARNING: NECESSARY BUT INSUFFICIENT

Operational Learning has long been the backbone of emergency service improvement, focusing on immediate, tactical lessons from specific incidents. The post-incident debrief represents this approach in action, asking: What happened? What went well? What could we have done differently?

This approach is characterised by immediacy and specificity. Insights typically remain confined to the team involved or the immediate operational context. Operational Learning is reactive

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by nature, refining tactics and procedures at the coalface of service delivery.

There is nothing wrong with this approach – indeed, it remains vital. The muscle memory of continuous operational improvement and tactical adaptations from frontline experience are invaluable. But they are insufficient to drive the systemic, sustainable transformation that modern services require.

### **ORGANISATIONAL LEARNING: THE STRATEGIC IMPERATIVE**

Organisational Learning operates at a fundamentally different level, examining patterns, themes, and systemic issues across entire organisations. It asks broader questions: Why do certain incidents consistently present similar challenges? What structural factors enable or inhibit effective response? How can insights from one part of the organisation inform practice elsewhere?

Where Operational Learning is reactive and specific, Organisational Learning is proactive and systemic. It transforms isolated lessons into institutional knowledge, ensuring learning from one crew becomes accessible across

the entire service. It connects dots between disparate incidents to reveal underlying trends and creates feedback loops between frontline experience and strategic decision-making.

Perhaps most critically, Organisational Learning embeds lessons into policy, training, resource allocation, and strategic planning. It ensures insights don't simply circulate within informal networks or remain locked in individual memories, but become part of the organisation's DNA – accessible, actionable and enduring.

### **THE CRITICAL DIFFERENCES**

Where Operational Learning involves individual teams or incidents, Organisational Learning encompasses entire services and cross-cutting themes. An operational debrief might involve a single watch discussing a challenging incident; Organisational Learning might identify similar communication failures across seventeen incidents over six months, pointing to systemic issues requiring strategic intervention.

Timeframes and perspectives differ significantly – while Operational Learning

operates immediately after events, capturing fresh insights while memory is sharp, Organisational Learning analyses trends over months or years to identify patterns visible only with temporal distance and aggregated data.

In knowledge management, Operational Learning relies on informal transfer: conversations in the mess room, personal relationships, and word-of-mouth. Organisational Learning demands systematic capture, categorisation, and dissemination, making insights searchable and actionable across time, geography, and organisational boundaries.

In terms of impact, Operational Learning drives incremental, localised improvements that enhance individual team performance. Organisational Learning enables transformational change – revising training curricula, reshaping operational doctrine, reallocating resources based on evidence, and fundamentally altering how services prepare for and respond to evolving challenges. ▶





## THE TECHNOLOGY ENABLER

The transition to genuinely organisational learning requires infrastructure, processes, and technology designed specifically for this purpose. Traditional approaches – spreadsheets, email chains, and disparate databases – cannot cope with the volume and complexity of learning across modern emergency services.

Dedicated Organisational Learning and Lessons Management platforms systematically capture insights from debriefs, incidents, exercises, and audits; categorise them according to meaningful taxonomies aligned with operational frameworks; identify patterns through intelligent analysis; and ensure the right lessons reach the right people at the right time. Emerging analytical capabilities, including AI-enhanced tools discussed later, are now amplifying these platforms'

power, enabling services to extract insights from operational data at unprecedented speed and scale.

Such platforms create a single source of truth, enabling services to move beyond individual memory and informal networks. They provide leadership teams with dashboard visibility of emerging themes, allowing proactive intervention before isolated issues become systemic problems. They enable comparison across time periods, stations, incident types, and operational contexts – revealing insights that would otherwise remain hidden in fragmented data sources.

Crucially, they also create audit trails demonstrating that lessons have been identified, actions assigned, responsibilities allocated, and improvements implemented and verified – increasingly important in an era of heightened accountability and performance scrutiny.

## THE PERFORMANCE AUDIT IMPERATIVE

The accountability landscape is evolving rapidly. Performance frameworks are becoming more sophisticated, inspection regimes more rigorous, and public expectations more exacting. Services are increasingly required to demonstrate not just effective incident response, but that systematic learning and continuous improvement are embedded throughout their operations.

Inspectorates will want evidence that services have robust systems for capturing lessons from all sources – not just major incidents but routine operations, exercises, near-misses, and external reviews. They'll expect to see that identified issues are tracked through resolution, that learning from one part of the organisation informs practice elsewhere, that trends are identified and addressed proactively, and that senior leadership actively engages with learning insights to drive strategic improvement.

Services relying solely on Operational Learning will struggle to demonstrate this systemic capability. Those investing in Organisational Learning infrastructure with proper governance, dedicated resources and appropriate technology will be far better positioned to evidence continuous improvement.

## BUILDING AN ORGANISATIONAL LEARNING CULTURE

Technology and processes are enablers, but culture provides the foundation. Effective Organisational Learning requires mindset shifts at every level. On the front line, it means recognising that sharing lessons is about collective improvement, not blame – requiring psychological safety where honest reflection is met with curiosity rather than defensiveness.

Within middle management, it demands time and resources for proper debriefs and meaningful follow-up, resisting the temptation to treat learning as tick-box exercise rather than core operational activity. At senior leadership level it requires visible commitment and accountability – leaders must actively seek learning insights, ask probing questions about emerging themes and ensure adequate resources address systemic issues.

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Learning. We began by refining operational learning procedures and implementing a system to identify, prioritise, embed, and audit learning effectively. With the ISARR platform now in place, we're expanding its use to capture learning from across the service, moving towards a truly integrated Organisational Learning approach.'

This journey exemplifies the strategic commitment required to transition from isolated operational debriefs to comprehensive Organisational Learning systems.

## THE NEXT EVOLUTION: AI-ENHANCED ANALYTICAL CAPABILITY

The maturity of Organisational Learning platforms has now reached a point where artificial intelligence can significantly improve analytical capabilities. Building on proven success at services like Northamptonshire FRS, this evolution represents pragmatic enhancement rather than revolutionary disruption – AI augments professional expertise rather than replacing it.

The AI assistant operates exclusively within the service's secure environment, with the service defining precisely which data AI can access. All insights require human validation before action, and station managers and Operational Learning leads retain full accountability – AI assists, but humans decide.

Officers at all levels gain access to comprehensive analysis through natural language questions. A watch manager can ask: 'What lessons have we identified about water relay operations?' and receive immediate summaries. Group managers can query: 'What are recurring themes in our multi-agency debriefs?' and get thematic analysis in minutes rather than hours. Principal officers gain strategic intelligence for HMICFRS preparation – turning days of evidence gathering into hours of focused review.

The efficiency gains are significant. In Northamptonshire, the new approach is expected to deliver substantial reduction in analysis time, equating to increased effectiveness and efficiency across Operational Learning managers, group managers, and station managers.

Beyond efficiency, AI analysis across hundreds of debriefs reveals invisible operational opportunities: equipment failure patterns enabling proactive maintenance, training-outcome relationships optimising development



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programmes, and recurring multi-agency challenges informing JESIP improvements.

As Neil Sadler from NFRS emphasises: 'We're committed to working smarter by harnessing technology to take on the heavy lifting. Exploring AI is an exciting opportunity for NFRS to identify themes and trends in learning across our systems, helping us continuously improve and innovate.'

ISARR's AI engine can transform HMICFRS inspection evidence compilation, reducing the process from weeks to hours and demonstrating systematic learning with embedded improvements.

## LOOKING FORWARD

The services that will excel in the years ahead will be those that learn most effectively – transforming experience into insight, insight into action, and action into improved outcomes. This transformation requires moving beyond the comfortable familiarity of Operational Learning to embrace Organisational Learning, supported by infrastructure that makes systematic learning possible at scale.

The opportunity facing every fire and rescue service is clear: those that embrace this evolution swiftly will be best positioned to demonstrate continuous improvement, satisfy regulatory expectations and deliver the enhanced service their communities deserve. ■



For more information, go to [www.isarr.com](http://www.isarr.com)



### WRITTEN BY

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With over four decades of experience spanning military operations and corporate resilience, Dougie offers a distinctive perspective

on Organisational Learning and Lessons Management. Serving in the UK Armed Forces from 1980 to 2005, one of the highlights of his early career was his time as a Special Forces Communicator, before being commissioned from the ranks and progressing to senior operational and training management positions, where he developed extensive experience in translating post-operational debriefs and exercise lessons into actionable improvements. Dougie has spent the two decades since 2005 applying this military-honed expertise across the defence industry and risk management sectors, holding Programme Management and Chief of Staff roles where Organisational Learning proved critical to both operational effectiveness and safety outcomes. This distinctive career arc – from special operations through strategic military leadership to corporate resilience – provides a unique lens through which to examine how emergency services and high-risk organisations can systematically capture, analyse, and implement lessons learned.