

Firefighter Perceptions of Reflective and Decision Logs: Enhancing Professional Practice

Dr. Sara Waring, Faye Plant and Catherine Stevens

Critical and Major Incident Research Group (CAMI)
University of Liverpool, Psychological Sciences
Eleanor Rathbone Building, Bedford Street South, Liverpool, L69 7ZA

Report Produced for Merseyside Fire and Rescue Service on the 21st May 2020

BACKGROUND

Firefighters often operate in extreme environments, characterised by time pressure, risk, uncertainty, lack of information, and competing goals (Waring et al., 2018, 2019a, 2019b). They are required to make key decisions to implement courses of action that will positively affect the outcome of an incident, but these decisions also have the potential to negatively impact an incident (UKFRS, 2019). As recent high profile incidents such as the Manchester Arena bombing and Grenfell Tower fire demonstrate, scrutiny over UK Fire and Rescue Service decisions is increasing, which emphasises two key issues:

i) The need to ensure that Fire and Rescue Services are preparing firefighters to make decisions under the pressures they could reasonably face (Health & Safety Executive, 2010)

Regular practice and timely feedback are important for improving decision-making in extreme environments (Alison, Power, van den Heuvel, & Waring, 2015). However, gaining practice and experience at operational incidents has become increasingly limited by reductions in the number and variety of incidents attended, and length of service (Department for Communities & Local Government, 2013). It is therefore vital for firefighters to adopt processes that maximise their learning in relation to the incidents they do attend.

In particular, research highlights the important role of mental reflection for improving learning. This involves critically thinking about and making sense of an experience to identify learning that can be taken forward at individual, group, and organisational levels (Høyrup & Elkjaer, 2006; Malinen, 2000; Quinton & Smallbone, 2010). Reflection can improve decision making (van den Heuvel, Alison & Power, 2014) by enhancing critical thinking (Mann, Gordon & MacLeod, 2009), problem solving (Schön, 1987) and ability to shift attention in response to the environment (cognitive flexibility; Spiro, Feltovich, Coulson & Anderson, 1989). Group reflection also has benefits for considering alternative perspectives and identifying areas of organisational improvement (Anseel, Lievens & Schollaert, 2008).

In order to encourage firefighters to regularly engage in reflection, Merseyside Fire and Rescue Service (MFRS) has introduced reflective logs to be completed post-incident. These reflective logs

For further information about this project, please contact Dr Sara Waring, University of Liverpool, Psychological Sciences, Critical and Major Incident Psychology Research Group, Eleanor Rathbone Building, Bedford Street South, Liverpool, L69 7ZA; s.k.waring@liverpool.ac.uk

ask firefighters to consider what decisions and actions they took and why, what went well, areas for improvement or aspects that could be done differently in future incidents, and any learning needs. However, success in the uptake and completion of reflective logs to date has been mixed, posing implications for the utility of this tool to enhance professional practice.

ii) The need to be able to accurately recall decisions at a later date, both to provide an account should decisions be questioned, and to improve individual and organisational learning (Health & Safety Executive, 2019)

Firefighters could be required to provide an account for their decisions and actions several hours, days, weeks, months or even years after an incident took place. For example, the Grenfell inquiry involved firefighters providing accounts of their decisions and actions more than 18 months after the event. However, a vast body of research shows that memory decays over time, which can result in both forgetting (Brown, 1958), and remembering inaccurate information (Wade, Garry, Read & Lindsay, 2002). Finding ways to improve ability to accurately recall the details of an incident, decisions taken and the reasons for this are important for increasing firefighter confidence in their ability to provide accounts at a later date, and for enabling the organisation to learn and implement changes where needed to improve response to future incidents.

Accordingly, MFRS have recently introduced decision logs to encourage firefighters to keep a written log of their decisions and the rationale behind them to improve accurate recall at a later date. These logs take the same form as the decision logs that the Police Service have been using for over three decades. Although MFRS acknowledge the value of decision logs for increasing organisational learning (CWC Services, 2019), their uptake has not been as successful as expected, limiting the utility of this tool for enhancing professional practice.

AIMS AND METHOD

At the request of MFRS, Dr Sara Waring, Faye Plant and Catherine Stevens from the University of Liverpool conducted an independent study to examine firefighters' opinions, perspectives, and experiences of using both reflective logs and decision logs. This is important for understanding what facilitates and hinders the use of these tools, and whether there are ways in which their uptake and utility could be improved to enhance professional practice.

In June 2019, 10 firefighters from a range of roles across MFRS were interviewed in order to gain first hand perspectives of these tools (Operational Planning, Watch Managers, Station Managers, Group Managers, and Area Managers). Interviews were transcribed and analysed using Thematic Analysis in order to identify common themes across firefighters. Feedback from firefighters is used to provide recommendations for improving the utility and uptake of reflective and decision logs.

SECTION 1: REFLECTIVE LOGS

- I) Awareness: All firefighters interviewed were aware of reflective logs and most had first-hand experienced of using them as part of the promotion process to demonstrate competency. However, there was doubt as to whether awareness of reflective logs and their purpose was as prevalent amongst staff in less senior ranks. Firefighters commented on the value of reflective logs as a tool for promoting "post incident learning" by reflecting on decisions. However, little reference was made to reflecting on emotions or contextual factors, and their influence on decisions.
- **II)** Benefits: Firefighters highlighted a number of benefits to using reflective logs, including as a tool to for career progression by demonstrating competency, enhancing individual and organisational

learning, and as a form of evidence to demonstrate organisational competency to external bodies. Firefighters also noted that reflective logs helped them to "reflect back through a different lens" and provided a "reference tool" to draw on prior experience in similar circumstances. Firefighters were unsure about the admissibility of logs in court proceedings but felt they would provide a beneficial support by demonstrating a track record of competency: "if I'm gripping the bar in a court of law, I want everything in my power to ensure that I tell the jury or the judge I did my best" (P7). However, concerns were also raised about potential use of reflective logs in court proceedings due to lack of training and worry about committing something to record that could be used against firefighters: "you don't really want to write something down that's going to come back and bite you...".

III) Usage: Most firefighters noted that reflective logs were most frequently used during assessments for promotion in order to demonstrate competency. However, they also felt that reflective logs were beneficial for challenging, intense or novel incidents and training events. Many firefighters felt that although making reflective logs obligatory would increase their use, this would defeat their purpose and encourage unfavourable outlooks, which could result in them being poorly completed as a tick box exercise rather than encouraging self-critical reflection. Some firefighters suggested that all firefighters across roles should complete reflective logs rather than only those in more senior roles, whereas others felt this would be *"a bit over the top"*.

IV) Barriers: Firefighters noted a number of barriers that prevented the effective use of reflective logs for improving learning, including lack of education and training, individual attitudes, organisational culture and practical reasons. Resource constraints and significant grant cuts meant that firefighters needed to prioritise mandatory tasks. Reflective logs were not viewed as mandatory, but rather as an additional tool that would only be completed should time permit.

There were also anxieties about being candid in disclosing information in reflective logs without knowing who would be reading them, why, and whether this may be used to penalise them: "I'm being very honest, who do these go to? Who's reading them?" Some felt that in order to engender honest, candid, self-critical reflections, only the individual completing them should be able to view them. Others felt that in order to get the most from reflective logs, there should be a process where others could review them in order for patterns across firefighters in learning needs to be identified and addressed at an organisational level. Importantly, comments highlight the need for clarification on the purpose of reflective logs and that they should be emphasised as a tool for enhancing learning, rather than as a mechanism for punishment.

Lack of education and training meant that practitioners were uncertain about when to complete reflective logs, whether to do so in addition to other reflective methods (e.g. group debriefs, OSHENS), and how to practically use their reflections to enhance practice where gaps in learning where identified. There were also concerns over whether they were completing reflective logs correctly and whether this would make them "look stupid".

V) Facilitators: Firefighters noted the importance of understanding the purpose and benefits of reflective logs for encouraging others to make use of them. Suggestions were also made for enhancing the personal reflection process including using supplementary materials such as body worn cameras or CCTV to enhance memory. Firefighters also felt that is was important to improve the "sell" of reflective logs to show they are not intended as "a big stick or a mundane tick in the box, but there's a purpose to them, [to] making people better and improving".

RECOMMENDATIONS:

Based on firefighter feedback, the following recommendations are provided to improve the use and utility of reflective logs:

- Clarify the purpose and reasoning for implementing reflective logs. Make it clear to all staff
 whether reflective logs are obligatory and should be completed by firefighters across all
 levels, or whether they are voluntary. Transparency is also needed around the disclosure of
 reflective logs and why/what the Service reviews them for. This is important for promoting
 honest reflections and trust that sharing these reflections will promote learning rather than
 negative criticism.
- Increase reflective log education. Provide workshops that provide information and demonstrate how prior reflective logs can be practically used to address gaps in learning and performance. Demonstrating the benefits of reflection and providing opportunities for firefighters to practice using reflective logs in a safe learning environment may increase firefighters' confidence in and appreciation of the value of reflective logs. For example, they could be embedded as part of XVR training sessions.
- Inform all ranks of the importance and benefits of reflective logs. This is likely to improve awareness and appreciation prior to their use in crew development roles and to help normalise the process of completing reflective logs on a regular basis.
- **Encourage the use of a facilitator.** The inclusion of a facilitator that provides a supportive role in overseeing all reflective logs to identify patterns across firefighters could be used to identify areas for organisational learning and targeted training.

SECTION 2: DECISION LOGS

- **I) Uncertainty:** All of the firefighters interviewed had a fundamental understanding of decision logs and their purpose. However, there was uncertainty regarding what types of incidents they should be completed for, the "trigger points" in an incident that signalled they should be completed, what happens when they have been signed off by the incident commander, and who can access to them.
- **II) Mistaking the Role of Incident Logs:** Many firefighters commented that there was an "overreliance" on the use of incident logs and there seemed to be a misconception regarding the difference between decision logs and incident logs. Incident logs simply record decisions such as the request for additional resources in real time but the rationale behind these decisions or the context in which they were made is not necessarily captured. However, decision logs should capture both the decision and the rationale. Firefighters suggested that confusion regarding the difference between these two tools is part of the reason for decision logs not being used as widely as expected.
- **III)** Training: Firefighters commented that only limited training and education had been provided in relation to decision logs, which affected how confident they felt in being able to complete these documents appropriately. In particular, firefighters wanted training to focus on the purpose of decision logs, their value, how they should be completed, when they should be competed, and clarification on how they would be used once signed off by incident commanders. There was an overall desire for more cohesive, consistent and standardised training on decision logs to be implemented throughout the service.
- **IV)** Learning from Other Organisations: Firefighters frequently discussed the Police use of decision logs, and their ability to successfully embed them within their service. Firefighters wanted to be in a position where decision logs were completed as habitually within MFRS as they were within the Police service, as they felt this would have many benefits for improving professional practice. Firefighters felt that it would be beneficial to engage in multiagency training alongside Police in order to learn from this agency's experience and best practice.

RECOMMENDATIONS:

Based on firefighter feedback, the following recommendations are provided to improve the use and utility of decision logs:

- Introduce the significance of decision logging across all firefighter ranks. This would help to improve awareness of decision logging, the value of this and why it is important. It would also help to normalise expectations that decision logs should be completed regularly by senior ranks.
- Standardising the training on decision logs across the service. This would help to eliminate
 inconsistencies and misunderstandings surrounding their purpose. As part of this training,
 firefighters should have the opportunity to practice using decision logs in a safe learning
 environment and to receive feedback on this in order to increase familiarity and confidence.
 For example, this could be implemented alongside XVR training sessions.
- Partake in regular multi-agency decision log training. In particular, firefighters feel it would be beneficial to learn alongside Police in order to enhance best practice and be in a position where decision logs are completed as habitually as they are within this agency. These training sessions could also be used as an opportunity for firefighters to receive feedback on their completion of decision logs and to facilitate familiarity across agencies to enhance collaboration (Waring et al., 2018, 2019a, 2019b, 2020).

REFERENCES

- Alison, L., Power, N., van den Heuvel, C., & Waring, S. (2015). A taxonomy of endogenous and in high-risk, high-impact contexts. *Journal of Applied Psychology*, 100(4), 1309–1318.
- Anseel, F., Lievens, F., & Schollaert, E. (2009). Reflection as a strategy for enhancing the effect of feedback on task performance. *Organizational Behavior and Human Decision Processes*, 110, 23–35.
- Brown, J. (1958). Some tests of the decay theory of immediate memory. *Quarterly journal of Experimental psychology,* 10(1), 12-21.
- CWC Services. (2019). *Incident and Decision Log Book*. Retrieved from CWC Services: https://www.cwc-services.com/information/product-in-depth/logbooks/idl.
- Department for Communities & Local Government. (2013). *Improvement Plan.* Retrieved from GOV.UK: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachmentdata/file/206469/DCLG
 _DIP.pdf.
- Health and Safety Executive. (2019). *Decision Log.* Retrieved from Health and Safety Executive: http://www.hse.gov.uk/foi/internalops/og/ogprocedures/investigation/decisionlog.htm
- Høyrup, S., & Elkjaer, B. (2006). Reflection: Taking it beyond the individual. In D. Boud, P. Cressey & P. Docherty (Eds.), *Productive reflection at work* (pp. 29-42). London, UK: Routledge.
- Malinen, A. (2000). Towards the essence of adult experiential learning: A reading of the theories of Knowles, Kolb, Mezirow, Revans and Schön. Jyväskylä, Finland: University of Jyväskylä.
- Mann, K., Gordon, J., & MacLeod, A. (2009). Reflection and reflective practice in health professions education: a systematic review. *Advances in Health Science Education*, 14, 595-621.
- Quinton, S., & Smallbone, T. (2010). Feeding forward: using feedback to promote student reflection and learning a teaching model. *Innovations in Education and Teaching International*, 47(1), 125-135.
- Spiro, R. J., Feltovich, P. J., Coulson, R. L., & Anderson, D. (1989). Multiple analogies for complex concepts: Antidotes for analogy-induced misconception in advanced knowledge acquisition. In S. Vosniadou & A. Ortony (Eds.), Similarity and analogical reasoning (pp. 498–531). Cambridge, MA: Cambridge University Press.
- United Kingdom Fire and Rescue Service. (2019, January 22). *UKFRS*. Retrieved from National Operational Guidance: https://www.ukfrs.com/pdf/print/promos%3A198801
- van den Heuvel, C., Alison, L., & Power, N. (2014). Coping with uncertainty: police strategies for resilient decision making and action implementation. *Cognition, Technology & Work*, 16(1), 25-45.
- Wade, K. A., Gary, M., Read, J. D., Lindsay. D. S. (2002). A picture is worth a thousand lies: Using false Photographs to create false childhood memories. *Psychonomic bulletin & review*, *9*(3), 597-603.
- Waring, S., Moran, J., & Page, R. (2020). Decision making in multiagency multiteam systems operating in extreme environments. *Journal of Occupational & Organizational Psychology*.
- Waring, S. (2019). Using live disaster exercises to study large multiteam systems: Methodological and measurement fit. Organizational Psychology Review.
- Waring, S., Alison, L., Humann, M., & Shortland, N. (2019). The role of information sharing on decision delay during multiteam disaster response. *Cognition, Technology & Work, 22*(2), 263-279.
- Waring, S., Humann, M., & Dawson, N. (2019). Facilitators and barriers to effective information sharing during international disaster response. *International Journal of Emergency Management*, 17(6), 469-486.
- Waring, S., Alison, L., McGuire, G., Barrett-Pink, C., Humann, M., Swan, L., & Zilinsky, T. (2018). Information sharing in interteam responses to disaster. *Journal of Occupational & Organizational Psychology*, *91*(3), 591-619.