

Revolution of Report Writing in Safety Investigations

Jenny O'Donnell¹, Nic Steevenson² & Paul Bowie³

¹Systemic Factors Limited, UK, ²Systemic Factors Limited, UK, ³HSSIB, UK

SUMMARY

This paper highlights the presence of reductionism and consequent blame within safety investigation reports across multiple high-reliability industries. It discusses the use of an innovative Learning Response Review and Improvement Tool, (LRRIT, referred to as the 'Tool' in this paper) initially developed for healthcare safety improvement (HSSIB, 2023). This Tool helps to shift the focus from the person, at the sharp end, to drive impartiality and systemic learning in safety investigation reports.

KEYWORDS

Blame, impartiality, investigation, systems-thinking.

Introduction

For too long, safety investigation report writing has used the language of blame when we should be striving for impartiality. The everyday language of attribution, which we use in social media, social interactions, and mainstream media filters through to our thinking, our conversations and can inadvertently influence the way we write. Investigation reports, from the National Transport Safety Board (USA) to UK published government and regulatory enquiries ranging from terrorism to maternity, often focus on the language of human failure as a cause. Treating error as a cause is a reductionist approach.

Over twenty years ago, authors such as Dekker (2001), highlighted that error is not a cause, it is a symptom of deeper system issues. However, in many investigation reports, probable cause or root cause are commonly presented as descriptors of mistakes, non-compliance and things that the 'naughty humans' have done. This way of writing misses the underlying factors in the system which does little to reduce risk and can be demoralising for those involved. This paper proposes a different approach to improve impartiality by making use of a recently published free investigation report review tool from healthcare (HSSIB, 2023).

Why do we write safety investigation reports this way?

Our work highlights that for experienced investigators, there are several reasons why reports are written this way. Historically, many investigators were trained to examine the deviant human and how they had not complied with a procedure that was assumed to be perfect. The onus on looking for, and consequently finding non-compliance informs the narrative of investigation outcomes. For us, as a collective, our engagements in many global organisations, where we have conducted research, diagnostics, training and consultancy have demonstrated this.

Many popular (Human Factors) taxonomies, regularly used by researchers and mandated in some large organisations, contain language that is, in places, biased against the human. Adjectives such as inappropriate, unsafe, inadequate, poor, and failure can be found in many taxonomies. Examples include the Yorkshire contributory factors, Maintenance Error Decision Aid (MEDA) to the Human Factors Analysis Classification System (HFACS), and tools such as Incident Cause Analysis Method (ICAM). Shorrock (2023) has recently commented on the need for neutrality in the terminology of our taxonomies.

Another potential influence for investigation language stagnating is that across high reliability industries there appears to be an absence of a report quality review tool. Research conducted for NHS Education for Scotland (2021) identified some common issues in investigation report writing. The findings of this research, combined with work from NHS England (NHSE) and Health Services Safety Investigation Body (HSSIB) were used to design a formative report review tool. This Tool was initially trialled with healthcare safety practitioners. The Tool was published last year via HSSIB (2023) and it was then also independently tested internationally in the mining industry (Steevenson, 2023).

Tool Content

The Tool (2023) comprises the following sample criteria, for the investigator to consider:

- The systems approach is applied and error is considered as a symptom, not a cause
- Blame language is avoided and local rationality is considered
- Counterfactual reasoning is avoided
- Safety actions/recommendations are effective.

Multi-method Research of using the Tool in Other Industries

Research was conducted (Steevenson, 2023) in the mining industry, internationally, to test the functionality of the Tool with a sample of 18 mining investigations experts using safety investigation reports. This study used a multi-method design including a Content Validity Index and qualitative surveys were utilised to assess the content of the Tool.

Results from the qualitative thematic analysis provided strong support for the Tool regarding its utility, content and purpose indicating that the Tool facilitated an impartial systems-based approach to reviewing reports. In addition, the data suggested that there could be further application of the Tool in the capacity of planning, conducting and writing an investigation. A global mining organisation has since incorporated this Tool into their standardised methodologies for investigation, as a result of this research. Anecdotally, investigators have reported that it has helped them write more impartial and systems-focussed reports.

Conclusion: Revolutionising safety investigation report writing

The purpose of this paper, therefore, was to explore the research that was conducted and, more importantly, to promote the use of this free investigation report review tool across industries. The aim of making this Tool freely available (HSSIB, 2023) can only serve to make safety investigation reports more impartial, less counterfactual and more systems focussed. We hope that promoting the use of this innovative tool will reduce the language of blame in the safety investigation space, allowing more effective risk reduction to flourish. Using such a tool, can be a step towards meeting the twin aims of human factors.

References

- Dekker, S. (2001). The reinvention of human error. *Human Factors and Aerospace Safety*, 1(3), 247–265. <https://research-repository.griffith.edu.au/handle/10072/57887>
- Healthcare Services Safety Investigations Body. (2023). *Learning Response Review and Improvement Tool*. Retrieved Nov 20, 2023 from <https://www.hssib.org.uk/education/learning-response-review-and-improvement-tool/>
- NHS Education for Scotland. (2021). Traps to Avoid in Safety Investigations, Education and Practice. Retrieved Nov 22, 2023 from <https://newsletters.nes.digital/scotland-deanery/october-2021/traps-to-avoid-in-safety-investigations-education-and-practice/>
- Shorrock, S. (2023). *Set Taxonomies to Neutral*. Retrieved Nov 27, 2023 from <https://humanisticsystems.com/2023/11/11/set-taxonomies-to-neutral/>
- Steevenson, N. (2023) *Dig Deeper: Testing the functionality of a preliminary Learning Response Review and Improvement Tool to formatively assess investigation reports in the mining safety context*. (Unpublished MSc Thesis) University of Derby.