

Process for Improving Accident Narratives in Amusement Ride Industry

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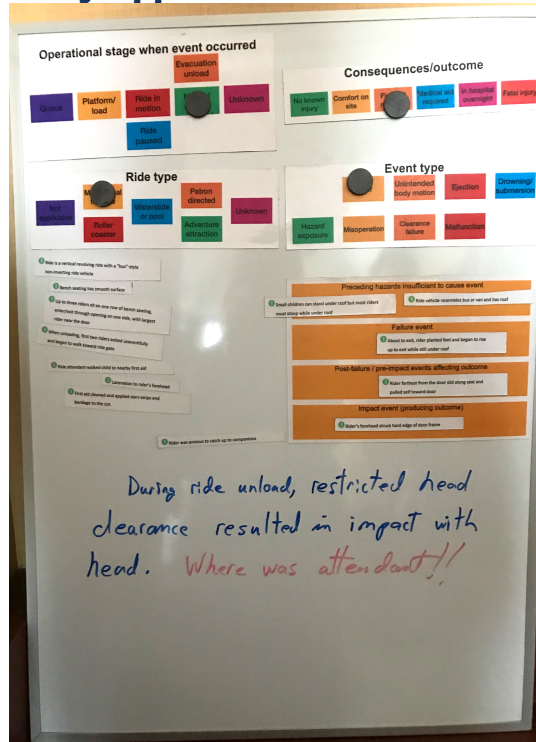
Study purpose

This study aimed to qualitatively evaluate the data reported in an accident narrative by providing structured tools and guidance. Improving initial accident narratives should result in better selection of cases for in-depth investigation, and thus lead to improved strategic interventions to prevent future failures and harm to the public.

Status quo

According to the annual report of Technical Standards and Safety Authority (TSSA), approximately 95% of all amusement device incidents were due to "external factors", often interpreted as inappropriate user behaviour. Recorded narratives included limited information about the user behaviour or circumstances. As a result, human factors analysis of past injury events cannot be supported.

Study Approach



Structured process

25 min.

Minimal instruction

Realistic scenarios

Four variables

Four accident stages

Freehand narrative

- TSSA Amusement Ride Safety Forum hands-on workshop
- 125 amusement ride professionals (25 groups, 5/group)
- Guidance for effective reporting
- 9 realistic fictional accident scenarios
- Avoid "Rider did" challenge

Despite minimal instruction, the structured process was reasonably well followed by most groups. The most difficult variable to identify was the intervening event. Less than 30% presented incomplete narratives, but 33% could not avoid the "rider did" construction they were asked to avoid. Further qualitative analysis of the narratives versus status quo is being undertaken. The results help to identify where training is most needed.

Acknowledgements

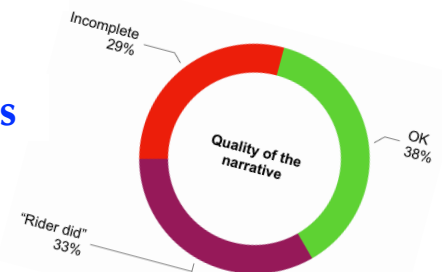
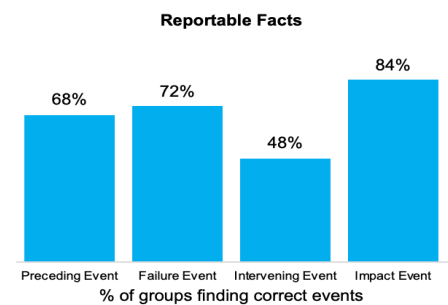
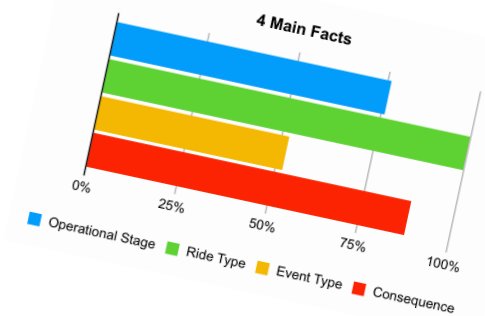
The Technical Standards and Safety Authority and THRILL Lab at Ryerson University have facilitated data gathering for the study.

THRILL: Human Factors in Amusement

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Narrative included required information

