

Improving Stickiness

A methodology for the integration of human factors skills reinforcement into existing technical training

E.B.J. Coffey

L. Ravagnolo

L. Bessone



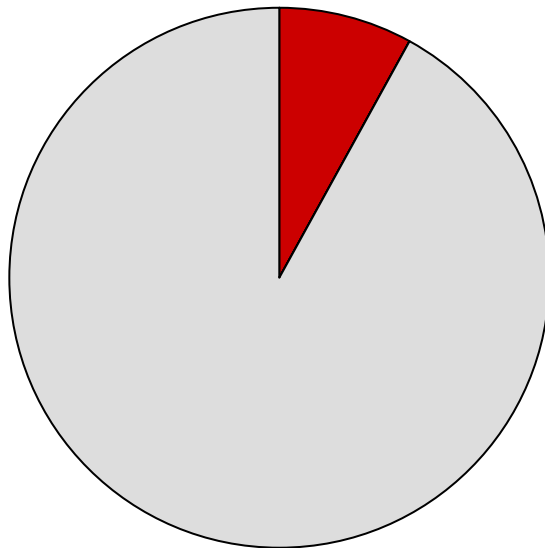
Outline

- Human Behaviour and Performance (HBP)
Reinforcement Options
- Suggested Steps and Considerations
- ATV Case Study




HBP Reinforcement Options

**Time spent in HBP vs.
Technical training**



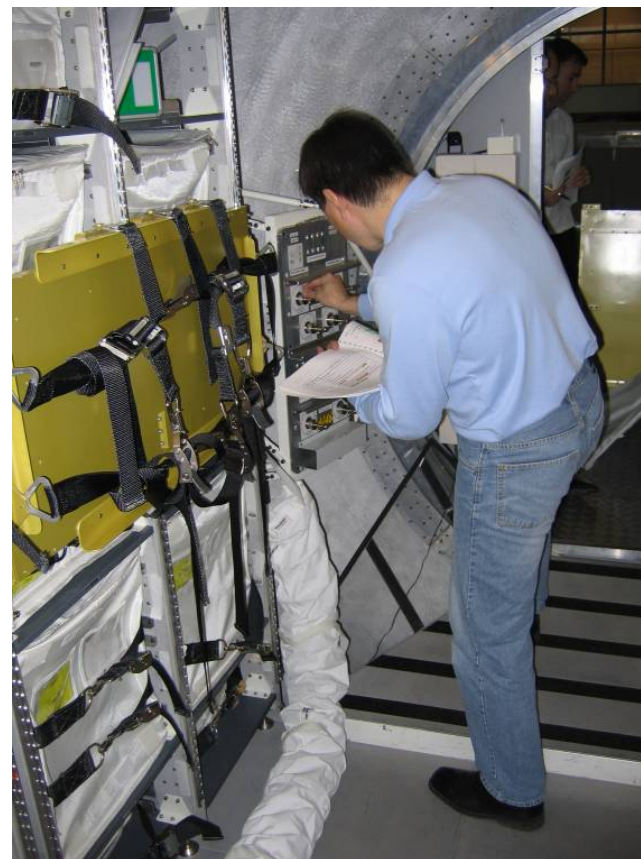
1. Complete re-development of technical training to include HBP
2. Find a way to include HBP reinforcement in existing technical training

Step 1: Pre-Implementation Planning

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- A large, light blue thought bubble with a black outline is centered on the slide. It contains a bulleted list of four questions. To the bottom-left of the main bubble are three smaller, stacked light blue circles of decreasing size, connected to the main bubble by a thin line, suggesting a trail of thought.
- Evaluation goal?
 - Supportive culture?
 - Competency Model?
 - Who are observers?

Step 2: Implementation Analysis

- Integration Team shares knowledge
- Examine technical evaluations
- Observe simulations



Step 3: Integration

- Consider constraints
- Draft HBP observation tools
- Brief users
- Field test and modify



Step 4: Long-Term Considerations

- Competency model coverage
- Maintain communication
- Train/brief new instructors
- Performance records over time

ATV Case Study



ATV HBP Evaluation Tool

ATV HBP Evaluation					
Trainee:		Sim date:			
Evaluator:		Lesson:			
Ratings: U – Unsatisfactory, S – Satisfactory, O – Outstanding, NE – Not Evaluated					
Communication	U	S	O	NE	Notes
Communicated with ground where specified by procedures					
Communicated task status and completion to ground					
Actively corrected confusion and sought answers					
Communicated clearly and concisely					

Teamwork	U	S	O	NE	Notes
Helped others and accepted help where appropriate					
Worked efficiently with crew and ground					

Workload Management	U	S	O	NE	Notes
Made use of ground resources where appropriate					
Distributed tasks effectively; both crew					

Generic guidelines for Ratings: U – Unsatisfactory, S – Satisfactory, O – Outstanding, NE – Not Evaluated (Evaluator discretion)

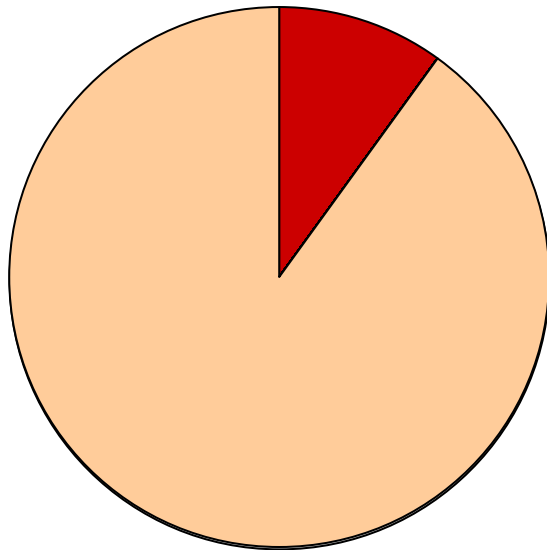
Communication	U	S	O
Communicated with ground where specified by procedures	Frequently omitted mandatory calls (> 5 slips)	Rarely omitted mandatory calls (1 – 5)	New
Communicated task status and completion to ground and other	Rarely shared information with crew and/or ground	Usually kept ground and other crew informed of present and planned activity status (< 3 slips)	Aw pres
Actively corrected confusion and sought answers	Rarely identified and corrected confusion, did not seek necessary information (≥ 3 slips)	Generally identified communication errors and corrected; asked questions to seek and clarify information (<3 slips)	Imm ask
Communicated clearly and concisely	Frequently provided incomplete, irrelevant, or confusing information (≥ 3 slips)	Generally provided complete, relevant, clear information (<3 slips)	Aw eas
Teamwork			
Helped others and accepted help where appropriate	Did not offer and / or accept help from colleagues	Usually offered and / or accepted help from colleagues (<3 slips)	Aw it be
Worked efficiently with crew and ground	Did not use all resources to accomplish mission in a timely manner	Usually used all personal and team resources to accomplish mission in a timely manner (<3 slips)	Use in a
Workload Management			
Made use of ground resources where appropriate	Infrequently requested information and support from ground when useful to complete mission efficiently	Usually requested information and support from ground when useful to complete mission efficiently (<3 slips)	Aw use
Distributed tasks effectively; both crew participated in 2-person tasks	Unequal distribution of tasks; only one crew on 2-person task	Usually distributed tasks effectively; both crew usually participated in 2-person tasks (<3 slips)	Aw 2-p
Use of Resources	Did not make use of all resources	Used most available resources	Ass

ATV Integration Results



Conclusion

Time spent in HBP vs. Technical Training



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Acronyms

- HBP : Human Behaviour and Performance
- ATV: Automated Transfer Vehicle