

STAFF MEMBERS' CHATS IN A REFRESH ROOM AS A WAY OF KNOWLEDGE SHARING FOR MAINTAINING THE RESILIENCE OF SOCIO-TECHNICAL SYSTEMS

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ABSTRACT

For maintaining resilience of every socio-technical system, it is believed necessary to learn not only from unsafe events but also from normal operation¹. To develop a safety information system figured by J. Reason² is an usual methodology for enhancing learning from unsafe events. However, it is often difficult to enhance learning from normal operation by this methodology caused on its nature of a safety information system. The most critical problem is that this system should be depending on information reported by staffs, while it would be difficult for them to find out information should be reported from their daily normal operation or figure out the information to a "report" (usually as a written paper) on their own.

By the way, in a refresh room, many staffs usually chat lively about various topics, some of which are related to their jobs. Such a chat can include information to be learnt, like know-how to mitigate a threat, a new idea to improve their performance as well as their experience of a previous incident or error, of course. Further, Chatting is believed an effective media to enhance learning from them because 1) they can use non-verbal language, onomatopoeia or various rhetoric like metaphor, to more lively and correctly express their intended information, 2) they can modify their expression to get intended information shared correctly with watching reactions of a companion, and 3) they can more clarify their own knowledge as they have a communication as a situated interaction, even if they wouldn't have had so clear image of the knowledge in them before chatting. Therefore, authors expect that enhancing lively chats can lead sharing some information which is difficult to be shared by Reason's safety management systems.

Standing on this background, authors conducted a survey to examine the relationship between chats in a refresh room and knowledge sharing about safety in a Japanese hospital. As a result, it was suggested that not only a frequency to participate in chats in a refresh room but also a frequency of their chat about their job (especially positive experience in jobs) would positively affect how much knowledge related to safety would be shared. Furthermore, authors attempted to develop a new method to enhance chats related to positive job experience applying Information Communication Technology and theories of cognitive psychology. As long as the laboratory experiments, the result showed that authors' method was effective to enhance a chat with a specific topic that authors intended to enhance.

The limitation and future work is discussed in a full paper and presentation.

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¹ Hollnagel, E. and Woods, D.D. (2006). Epilogue: Resilience Engineering Precepts. In Hollnagel, E., Woods, D. and Leveson, N.. Resilience Engineering : Concepts and Precepts (pp.346-358), Ashgate

² J. T. Reason and A. Hobbs, Managing Maintenance Error: A Practical Guide. Ashgate, 2003.