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Safe travel: Passenger assessment of trust and safety during seafaring

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ABSTRACT

Across two studies, this paper explores passengers' knowledge and perceptions of safety and risk during voyage at sea. Study 1 showed that, although overall safety knowledge can be considered good, some differences exist between groups of passengers. Younger passengers and passengers on shorter trips generally have less safety knowledge than older passengers and passengers on longer trips. Study 2 addressed the effects of two different formats of presenting safety relevant information on passengers' perception of trust, safety and risk on board. Results showed that passengers receiving an in vivo safety demonstration and teaching session reported being better informed about safety and expressed higher levels of trust in the crew compared with passengers receiving on board video-only safety instructions. Thus, although video modelling can be an easy and inexpensive way to deliver safety information our results suggest that additional personalized and live demonstration quickly builds confidence and trust from passengers that represents an important asset for commercial transportation companies.

1. Introduction

The world witnessed the deaths of about 300 people aboard the Korean passenger ship MV Sewol in 2014 (McCurry, 2014). Fortunately, accidents like this seldom happen. Knudsen and Hassler (2011) maintain that accidents within the maritime sector have been reduced (judging by total loss per vessels) drastically in these past decades. In fact, the European Transport Safety Council (2003) ranks marine transport as the fourth safest means of passenger transportation in Europe following bus, rail and air. While serious accidents involving passenger ships seldom occur, the consequences could be disastrous when they do, as exemplified by the sinking of the MV Sewol.

Collisions and groundings are the most common accidents in European waters; combined they represent 71% of all reported accidents (Allianz, 2012). Due to the associated risk of flooding and ultimately sinking, collisions and groundings are also considered among the most critical accidents involving passenger ships (Vanem, 2003). Fire also represents a major on-board risk, especially in Ro–Ro (roll-on/roll-off) ships and passenger ships with many travellers and increased hotel services (Allianz, 2012). Still, because the expected time available for evacuation in case of grounding and collision is much less than the expected evacuation time in case of fire, Vanem and Skjong (2003) maintain that the expected consequences in terms of passenger fatality are higher for the former.

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When a serious accident such as a collision, grounding or fire occurs, an evacuation represents the last resort to minimize the consequences of the accident. To some extent the evacuation performance and safety of passengers are dependent on their own reactions and behaviours (Eid, Johnsen, & Thayer, 2001). Passengers' reactions and behaviours can in turn be said to be influenced by their knowledge of safety and familiarity with appropriate safety measures such as how to don a life jacket and where to muster when the emergency signal is sounded. Thus, the aim of Study 1 was to assess demographic factors associated with passengers' knowledge of and familiarity with various safety–critical measures on board passenger ships. In Study 2 we examine if different formats of safety briefings will effect passengers' perception of trust, safety and risk on board.

2. Study 1

In 1995, the high-speed catamaran passenger ship St. Malo hit a rock one mile off shore and immediately started taking in water (Lackey, Purcell-Jones, Twiston Davies, & Clifford, 1997). The Master of the ship gave the order to evacuate, and the 301 passengers were evacuated as the ship was listing and in motion. The sea conditions were favourable, it was daylight, and most passengers were in the saloon. Although the evacuation situation was comparatively good, the evacuation time for the 308 passengers was recorded as 1 h and 17 min (Lackey et al., 1997). The evacuation time recorded during the drill in static conditions was 8 min. This shows that evacuation analysis has limited relevance to practical situations if it does not take account of the rolling, pitching and listing of the ship, as well as the panic and behaviour of the passengers under such conditions.

Passenger ships today are subject to a vast array of regulations and standards covering every aspect of ship construction and operation. This includes guidelines that prescribe that an evacuation analysis should be incorporated into the design process at an early stage for all new ships (International Maritime Organization [IMO], 2002). Several evacuation models and simulation tools have been developed, such as *maritme*EXODUS, AENEAS and CityFlow-M (see, Wang, Liu, Lo, & Gao, 2014). While many of these acknowledge human behaviour under evacuation as an important factor to incorporate, evacuation modelling usually concentrates on the possible technical improvements for increasing passenger safety, with less attention being devoted to human behaviour (Ahola, Murto, Kujala, & Pitkãnen, 2014). As Lee, Kim, Park, and Park (2003, p. 865) have noted, however, "evacuations are mainly dependent on the behavior of the evacuees," and go on to define behaviour as the culmination of all influences (e.g., group affiliation and likely travel speeds).

Research within the aviation industry has shown that inaccurate cabin safety knowledge can have significant influences on passenger behaviour. In combination with the panic and stress of an emergency situation this can have fatal consequences. Chang and Liao (2009), for instance, report an aircraft accident where the single casualty was caused by the passenger having inflated the life jacket too early. Similarly, in another instance, a passenger had put three life jackets on a child, while another had inflated the life jacket before exiting the aircraft. These examples point to the importance that knowledge of the correct use of life jackets and other safety critical information can have in an emergency situation. Yet, little effort has been devoted to surveying the level of knowledge among travellers on board passenger ferries.

In one exception, Baker (2013) conducted a survey among cruise passengers in the Western Caribbean. The results of this study showed that cruise passengers in general had average to good knowledge of the location of life vests, the nearest fire exits and other safety critical information. Baker also found evidence of a relation between knowledge and cruise experience; that is, passengers on their first cruise generally had less knowledge than more experienced cruise passengers.

Based on the short discussion so far, the aim of Study 1 was to survey the safety knowledge of travellers on board passenger ships, and to explore differences between sub-groups of passengers. Specifically we wanted to explore the impact of sex, age, previous travel experience and travel duration on safety knowledge.

2.1. Method

2.1.1. Participants and procedure

Participants in Study 1 were 320 passengers on board two different Ro–Ro passenger ships belonging to a Norwegian company. It is estimated that a total of 605 passengers were on board the two ships, yielding a response rate of 52.9% for our study.[1] Questionnaires were administered by two research assistants during the summer 2014 while the ships sailed along the Norwegian coast. There were slightly more women (n = 164) than men (n = 152, four participants did not state sex), and the mean age of the participants was 57.9 (SD = 15.3). More details about the participants are available in Table 1.

2.1.2. Questionnaire

In addition to the background information presented in Table 1, the participants were asked seven questions designed to assess their knowledge of safety critical information. On a five-point Likert-type scale with anchors of 1 (*don't know at all*) and 5 (*know very well*), participants were asked to report their knowledge of (1) the rallying point in case of evacuation by life boats, (2) the evacuation route from their cabins, (3) the sound of the evacuation alarm, (4) where to find life vest and other survival gear, (5) the correct way to use a life vest, (6) where to find first-aid equipment and (7) emergency phones and other alarm systems.

[1] The estimated total number of passengers in Study 1 and Study 2 are taken from the company's registered passenger lists.

Table 1
Demographic characteristics of participants in Study 1.

Variable	Frequency (*n*)	Percent (%)
Sex		
Men	152	47.5
Women	164	51.2
Missing	4	1.3
Nationality		
Norway	75	23.4
USA	30	9.4
Germany	86	26.9
UK	6	1.9
France	3	0.9
Australia	9	2.8
Netherlands	19	5.9
Switzerland	30	9.4
Austria	10	3.1
Other	52	16.3
Prior travel experience with company		
None	240	75
Once	40	12.5
Several times	37	11.6
Missing	3	0.9
Duration of trip		
1–3 days	77	24.1
4–6 days	161	50.3
More than 7 days	78	24.4
Missing	4	1.2

Note. The other category includes participants from a variety of countries from Europe, Asia and the Americas.

2.2. Results

The results from a descriptive analysis of the respondents' safety knowledge are presented in Table 2. This descriptive analysis revealed that the passengers' knowledge can be described as medium to good on all items except for the last two where the mean score was below the midpoint (i.e., <3).

We next performed a principal component analysis (PCA) to determine if the seven items could be reduced to a smaller number of components. The PCA revealed two components with eigenvalues above one that combined explained 69% of the total variance. To further aid our decision about the number of components to extract, we performed a parallel analysis using 1000 replications. Parallel analysis involves comparing the eigenvalues derived from the observed data to eigenvalues that are obtained by simulating normal random samples that parallel the observed data in terms of sample size and number of variables. A component is considered important if the associated eigenvalue is larger than the mean of those obtained from the simulated data. Parallel analysis has been shown to be an appropriate method to determine the number of components to retain (Zwick & Velicer, 1986).

The result from the parallel analysis showed that the eigenvalues for the first two components from our PCA were larger than the means of the corresponding components obtained from the simulated data. Based on this result we extracted two components with an orthogonal rotation (Varimax). The first component contained the first five knowledge items in Table 2 (component loadings between .31 and .51). This component can be said to contain knowledge most relevant for personal safety, such as evacuation routines and where to find and how to use a life vest, and these five items were combined into a single mean score termed "evacuation knowledge".

The second component contained the last two knowledge items (component loadings .68 and .70 for the sixth and seventh item, respectively). These two items were combined into a separate knowledge mean score termed "knowledge of first-aid and alarm systems".

We then proceeded to explore differences in safety knowledge between subgroups of passengers. First, two separate two-way between groups analysis of variance (ANOVA) were conducted to explore the effect of previous travel experience and duration of trip on levels of the two safety knowledge components. Both previous travel experience and duration of trip consisted of three groups (see Table 1). For previous travel experience, respondents reported the number of times they had previously travelled with the current company (Group 1: none; Group 2: once; Group 3: several times). For duration of travel, respondents indicated the number of days that they were planning to be on board (Group 1: 1–3 days; Group 2: 4–6 days; Group 3: 7+ days).

The interaction effect between travel experience and duration of trip was not statistically significant for evacuation knowledge, $F(4,306) = 0.42$, $p = .793$. There was a statistically significant main effect for duration of trip, $F(2,306) = 12.42$,

Table 2
Descriptive analysis of respondents' safety knowledge.

Item	*n*	*M*	*SD*
How well do you know...			
The rallying point in case of evacuation by lifeboat	316	3.70	1.32
The evacuation route from your own cabin	313	3.88	1.30
The sound of the evacuation alarm	311	3.71	1.40
Where to find life vests and other survival gear	311	3.95	1.31
The correct way to use a life vest	313	3.85	1.13
Where to find first-aid equipment	313	2.15	1.26
Emergency phones and other alarm systems	308	2.58	1.36

Note. Range = 1 (*don't know at all*) to 5 (*know very well*).

$p < .001$, $\eta^2 = 0.08$, $\omega^2 = 0.07$. The magnitude of this effect ($\eta^2 = 0.08$; $\omega^2 = 0.07$) was small based on the usual recommendations (Cohen, 1988). Post-hoc comparisons using the Tukey HSD test showed that the adjusted marginal mean for passengers travelling 1–3 days ($M = 3.19$, $SE = 0.13$) was significantly lower than the adjusted means for passengers travelling 4–6 days ($M = 3.96$, $SE = 0.08$) and passengers travelling seven days or more ($M = 4.07$, $SE = 0.12$). There was no statistical significant difference in means between passengers travelling between four and six days and passengers travelling seven days or more. The main effect for previous travel experience, $F(2,306) = 2.45$, $p = .088$, did not reach statistical significance. No significant interaction or main effects emerged for the second safety knowledge component.

Second, two additional two-way between groups ANOVAs were conducted to explore the effect of sex and age on levels of safety knowledge. Participants were divided into four groups according to their age (Group 1: 44 years and below; Group 2: 45–54 years; Group 3: 55–64 years; Group 4: 65 years and above). The interaction effect between sex and age group was not statistically significant for evacuation knowledge, $F(3,306) = 0.21$, $p = .89$. There was a statistically significant main effect for age group, $F(3,306) = 4.76$, $p = .003$. This effect was small in magnitude ($\eta^2 = 0.04$, $\omega^2 = 0.04$). Post-hoc comparisons using the Tukey HSD test showed that the adjusted marginal mean for the 44 years and below age group ($M = 3.34$, $SE = 0.16$) was significantly lower than the 55–56 years age group ($M = 4.02$, $SE = 0.10$) and the 65+ group ($M = 3.89$, $SE = 0.10$), but not the 45–54 years age group ($M = 3.65$, $SE = 0.13$). None of the remaining pairwise comparisons were statistically significant. The main effect for sex did not reach statistical significance, $F(1,306) = 0.63$, $p = .428$, and neither did the interaction effect or any of the main effects for the second safety knowledge component.

2.3. Discussion

In this study, three findings emerged. First, the safety relevant knowledge of passengers can be characterized as somewhere between medium and good. Second, we found that passengers on shorter trips (less than four days) had statistically significant less knowledge about evacuation routines than passengers on longer trips. Accidents are rare events, and in light of this it makes sense that passengers on shorter trips are less concerned than passenger on longer trips. Passengers on longer trips, on the other hand, take precautions regarding their own safety and take note of such things as their cabin location and nearest fire exits. It is also likely that passengers who spend more time on board will familiarize with the ship, including knowledge about the safety critical equipment and procedures.

Third, our results also showed that younger passengers tend to have less safety knowledge than their older counterparts. Similar findings have emerged from research within the aviation industry. In a study of domestic airline passengers in Taiwan, for instance, Chang and Liao (2008) found that older travellers generally had more cabin safety awareness than younger travellers. The effect of age on safety knowledge and attention to safety briefs has been demonstrated in several other investigations as well (e.g., Johnson, 1979; Parker, 2006), and possible explanations that have been offered include feelings of familiarity with the content, overconfidence in their own capabilities, and negative attitudes towards safety briefs. Indeed, in one report (Johnson, 1979), those participants who stated not paying attention to the safety information also reported that paying attention was a waste of time.

Unlike the study by Baker (2013), we found no differences between experienced and non-experienced travellers. It should be noted, however, that the majority of passenger on longer trips also were passenger with no prior travel experience, making it difficult to disentangle the effect of duration from prior experience.

3. Study 2

The Costa Concordia accident in 2012 tragically demonstrated the importance of muster drills and passenger safety briefs on board cruise ships. At that time, IMO regulations required musters of newly embarked passengers on ships on a voyage where passengers are scheduled to be on board for more than 24 h to take place within 24 h (International Maritime Organization [IMO], 2013). The Costa Concordia picked up passengers at a number of ports during its cruise around the Mediterranean and therefore did not hold a muster drill for new passengers before departing at every port. This means the muster drill had not yet been held for the nearly 700 passengers who boarded the Costa Concordia in Civitavecchia (Port of Rome) when the vessel struck a rock in the Tyrrhenian Sea about 100 km from Rome. In the wake of the Costa Concordia accident, the IMO's Maritime Safety Committee (MSC) approved draft amendments to chapter III (Life savings appliance and arrangements) of the International Convention for the Safety of Life at Sea (SOLAS) (International Maritime Organization [IMO], 2013). In the amendments, which are expected to enter into force on 1 January 2015, musters of newly embarked passengers are required to take place prior to or immediately upon departure.

Passengers embarking on a ship will to a large extent have to trust the skills of the ship management and designated crewmembers to ensure safe rescue in case of an emergency. Indeed, the need for immediate development of trust in the competence and knowledge of crewmembers could in certain situations represent a matter of life or death. Swift trust has been defined as "a unique form of collective perception and relating that is capable of managing issues of vulnerability, uncertainty, risk and expectations" (Meyerson, Weick, & Kramer, 1996, p. 167). Although empirical research on swift trust in temporary groups is still in its infancy, organizational trust has been related to aspects of safety climate, such as management attitudes and communication, and has been shown to have an effect on organizational safety-related behaviours (Kath, Magley, & Marmet, 2010). It is therefore reasonable to believe that passengers' trust in crewmembers will be equally important for safety and risk perception should an emergency situation arise and evacuation become necessary.

Based on this short discussion, the aim of Study 2 was to explore the effect of an in vivo safety demonstration and teaching session compared to a brochure and video-based safety instruction on passengers' perception of trust, safety and risk on board. The ships from which the participating passengers in the present paper were sampled sail a continuous and fixed-pattern route along the coast from the south of Norway to the north of Norway. Importantly, the company owning and operating the passenger ships conducts mandatory safety briefs for all passengers at the southern-most port of embarkation prior to departure. This brief includes video presentations, as well as live reviews on how to don a lifejacket, instructions to follow in case of an emergency and so on. Passengers are also invited to try on survival suits if they so wish. The ships in question have frequent port visits along the coast, meaning that while most long-distance travelling passengers embark at the southern-most port, there are still a number of passengers embarking at different ports for comparably shorter trips – often less than 24 h – and who do not receive this extended safety brief. For these passengers, the same video presentation that is included in the extended safety brief is shown on monitors on board the ships, and in addition, these passengers receive a brochure containing specific safety information.

3.1. Method

3.1.1. Participants and procedure

Participants for Study 2 were 303 passengers on board two different Ro–Ro passenger ships belonging to the same company as in Study 1. It is estimated that a total of 469 passengers were on board these two ships, yielding a response rate of 64.6%. As in Study 1, two research assistants administered questionnaires during the summer of 2014 while the ships sailed along the Norwegian coast. Of the total sample, 170 were women and 130 were men, while three individuals did not state their sex. The mean age of the participants was 61.7 (SD = 13.5). More details about the participants are available in Table 3.

3.1.2. Questionnaire

In Study 2, we asked participants to report their judgements of the general risk associated with travelling with the current company, the likelihood of getting injured during the trip, their trust in the crew, their feelings of safety on board, whether they had been informed about safety, and their need for more information about safety. All questions were rated on a seven-point scale, with anchors of *very low/very high* for the risk and accident questions, and anchors of *completely disagree/completely agree* for the remaining questions.

In addition to the above questions, respondents were also asked if they had attended the safety briefing at the terminal prior to embarking the ship.

3.2. Results

Wilcoxon–Mann–Whitney tests were used to compare passengers who attended the pre-embarkation safety brief and passengers who did not. The Wilcoxon–Mann–Whitney test is based on rank orders, and is often considered a non-parametric analogue to the independent samples t-test when the assumptions of the latter are violated (e.g., the dependent variable is not normally distributed). The results of a series of Wilcoxon–Mann–Whitney tests are presented in Table 4.

As can be seen from Table 4, the majority in both groups felt very safe on board, as indicated by a median score of 7 in both groups. Still, the statistically significant z-statistic suggests that there is a statistically significant difference between the underlying distributions of the scores for the groups of passengers who attended the safety brief and passengers who did not. (The mean ranks of the two passengers groups were 143.27 and 123.12 for attendees and non-attendees, respectively.)

The majority of attendees also felt that they had been well informed about safety (Mdn = 7 vs. Mdn = 5 for non-attendees). If we make the assumption that the distributions of the two populations have the same shape, even if they are shifted (i.e., they have different medians), then we could interpret the statistically significant z-statistic as indicating that the median for the attendees is significantly higher. However, an inspection of the distributions for the groups of attendees and non-attendees did not warrant such an assumption, and we restrict our conclusion to stating that the mean rank for the attendees was significantly higher for attendees than non-attendees (160.7 vs. 81.9).

Table 3
Demographic characteristics of participants in Study 2.

Variable	Frequency (*n*)	Percent (%)
Sex		
Men	130	42.9
Women	170	56.1
Missing	3	1
Nationality		
Norway	60	19.8
USA	7	2.3
Germany	75	24.7
UK	54	17.8
France	7	2.3
Netherlands	9	3
Switzerland	35	11.6
Austria	9	3
Other	47	15.5
Extended safety brief		
Yes	189	62.4
No	89	29.4
Missing	25	8.2

Note. The other category includes participants from a variety of countries from Europe, Asia and the Americas.

Table 4
Passengers' ratings of trust, risk and safety by format of presenting safety relevant information.

Statement	In vivo presentation		Video based only format		*Z*	*p*	*r*
	Mdn	Range	*Mdn*	Range			
Probability of accident	2	1–6	2	1–7	−0.20	.84	–
General risk	2	1–4	2	1–7	0.21	.84	–
I feel safe on board	7	1–7	7	1–7	2.27	.02	.14
Trust crew will take care of me	7	1–7	6	1–7	2.09	.04	.13
Well informed about safety	7	1–7	5	1–7	8.12	<.001	.49
Want more information about safety	2	1–7	4	1–7	−4.56	<.001	.28

Note. All questions were rated on a seven-point scale, with anchors of 1 = *very low* and 7 = *very high* for the risk and accident questions, and anchors of 1 = *completely disagree* and 7 = *completely agree* for the remaining questions.

The same was true for the question about wanting more information about safety. Attendees had a lower median score than non-attendees, but the distributions of the two groups did not warrant the assumption of identically shaped distributions in the population. Attendees did, however, have a significantly lower rank than the non-attendees (119.2 vs. 164.6). For the question "I trust the crew will take care of me," the distributions did seem to be of more or less identical shape. As Table 4 shows, the median for attendees (*Mdn* = 7) was significantly higher than the median for non-attendees (*Mdn* = 6, $z = 2.09$, $p < .05$). There were no statistically significant differences between the two groups regarding judgments of general risk and the probability of accidents.

The last column in Table 4 presents effect sizes for the obtained differences. These are approximations of the common *r*, and can be evaluated using Cohen's (1988) criteria of .1 = small effect, .3 = medium effect and .5 = large effect. Apart for trust that the crew will take care of passengers ($r = .49$), all obtained differences were small to medium in magnitude.

3.3. Discussion

The aim of the second study was to examine the effects of two different approaches to deliver safety critical information to passengers. In this study, two findings emerged. First, passengers exposed to the in vivo instruction format reported to be better informed and felt less need for additional information compared to passengers exposed to the video-based safety instruction. This is interesting since video based modelling is often considered to be more flexible and accurate in that video modelling provides the opportunity to highlight relevant stimuli in the environment such as zooming in on safety details, repeating sounds or visual warnings. Still, emerging evidence from comparing the relative effectiveness of different training formats suggest that training involving behavioural modelling, a substantial amount of practice and dialogue is generally more effective than other methods of safety and health training (Burke et al., 2006). It should be noted, of course, that the pure video based safety instruction is more voluntary in nature, and many passengers probably elect to ignore or pay little attention to it. As a consequence, these passengers feel less informed about safety and, when asked, are left with a feeling of wanting more information.

Second, passengers exposed to the in-vivo demonstration also reported higher levels of trust in the crew and a stronger belief that the crew is focused on safety and will be committed to do their outmost to take care of the passengers in an emergency. Thus, although video modelling can be easier and less expensive to administer, these data suggest that the personalized in-vivo demonstration quickly builds confidence and trust from passengers that is important for a commercial transportation company.

We found no differences in the passengers' perceptions of risk or their judgments of the probability of an accident. On the one hand, this is perhaps not that surprising given that the degree of being informed or not about safety does not really alter the risk of travelling or the probability of an accident. On the other hand, one could expect that informing and reminding passenger about safety and possible accident scenarios would make these issues more cognitively available to the passengers. Making possible accident scenarios and threats to safety cognitively available could, in turn, lead to an exaggerated assessment of risk and accident probability.

4. General discussion

The present study is one of few empirical investigations into passenger assessment of risk and safety during voyage at sea. Several general issues emerge from these two studies that have practical or conceptual implications. In line with previous investigations (Chang & Liao, 2008; Parker, 2006), our results showed that younger passengers had less safety knowledge compared with older passengers. Our findings further suggest that travelling only a short distance was associated with a lowered awareness of safety critical information on board. Although seemingly different, both factors may be seen to represent the well-known overconfidence effect (Pallier et al., 2002) in passengers' judgment of personal competence when facing risk and uncertainty. It is therefore important to find effective ways to provide information about safety and evacuation procedures in a timely and convincing way so that even the more self-confident and less concerned traveller takes his/her time to process and comprehend the safety critical information.

One reason often mentioned for why passengers are not paying attention to briefings is safety communications that are boring and fail to capture interest (Parker, 2006). Safety briefings could therefore be tailored so that they meet the needs and interests of particular audiences. In the last couple of years, several airlines have turned traditional in-flight safety videos into entertainment pieces. Notably among these is Air New Zealand who has produced in-flight safety videos featuring players from New Zealand's national rugby team and characters from the movies *Lord of the Rings* (Jackson et al., & Jackson, 2001) and *The Hobbit* (Blackwood et al., & Jackson, 2012). Such an entertainment-oriented approach to safety briefings might be particularly suited to capture the attention of younger passengers. Care must of course be taken that such an approach does not dilute or confuse the core safety message.

New technology may also provide interesting opportunities. The ubiquitous presence of technologically advanced smartphones and tablets offers the opportunity to use applications that communicate safety information in a manner that is tailored to specific passengers. Such applications could take the form of safety games or some other interactive format that have the potential to be far more engaging than traditional safety briefings. In this way passengers would also engage in active learning, which has been shown to be more effective than passive learning (e.g., Freeman et al., 2014).

In the second study, we investigated the effects of different formats of presenting safety relevant information. In doing so, we extended Study 1 in several ways. First and foremost, the results of this study showed that the in-vivo presentation of safety critical information was superior to the video-based safety instruction. Although a video based only format is easy and cost effective, it is also a relatively passive format that is vulnerable to distractions and may receive little attention from passengers compared to more active instructional formats (Burke et al., 2006). Secondly, the in-vivo format produced more trust and confidence in the crewmembers safety commitment compared to the video based only format. If the in-vivo safety demonstration instils the passengers with quick trust in the crewmembers this is a valuable effect. In many respects, passengers could be compared to workers in safety critical organizations. In these organizations, trust in management and perceived safety climate mediate the relationship between a high performing work system and safety performance measured in terms of personal-safety orientation (i.e., safety knowledge, safety motivation, safety compliance, and safety initiative) and safety incidents (i.e., injuries requiring first aid and near misses; Zacharatos, Barling, & Iverson, 2005). From this, establishing quick trust between passengers and crew may therefore contribute to a safe travel.

An important and overarching question is how passengers can be encouraged to pay more attention to safety briefs and safety information. It is not uncommon for flight hostesses to take rounds to check if passengers actually adhere to the simple instructions of fastening their seat belts and leaving the window cover totally opened. In the same respect, actions could be taken to make sure that passengers really pay attention to on board safety information. While the application of similar measures in seafaring seems logical and tempting, there are reasons to believe that such actions will face several daunting practical challenges. However, the findings from these studies present empirical findings that may inform evidence based approach to information management to increase passenger safety in the maritime industry.

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