

Effective Presentation Media for Passenger Safety: Comprehension of Briefing Cards Gestalt and Elements

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Research conducted in 2008 tested the comprehensibility of 41 pictographic and pictogrammatic passenger safety briefing cards. These cards, while required by federal regulations, are designed and deployed by individual airlines and were not required to follow any standardized formats, leading passengers to encounter the same information presented in a different way for each airline. The study was intended to evaluate the, then, state of the art in airline briefing cards and subject them to a standardized test procedure to evaluate their comprehension by an American audience. This research was partly motivated by National Transportation Safety Board recommendations and findings that passenger attention to safety information was declining. The researchers, following the testing procedure developed by the International Organization for Standards (ISO) for the comprehension of graphical symbols (ISO 9186:2001) collected data on 41 briefing cards from 785 participants. These participants were recruited from high schools, public and Federal offices, cabin safety workshops at the Civil Aerospace Medical Institute, and the SAE International Cabin Safety Provisions Committee, S-9. The pictorials and pictograms were selected from safety briefing cards used by airlines at the time. Due to the density of the data collected, the results of the study were separated into thirds and reported separately while focusing on different interactions and interpretations of the results. This report contains 13 of the 41 pictorials/pictograms in this study. Comprehension scores for each pictorial and pictogram were obtained by sorting the responses based on correctness and then transforming based on a weighting algorithm. Comprehension scores ranged from 36.52% to 80.43% with a mean comprehension of 56.43%. Only one score exceeded the ISO standard acceptance criteria (67%) and none of the scores exceeded the acceptance criteria of the American National Standards Institute (85%). Comprehension of the briefing cards were related to cabin safety expertise and previous exposure to briefing cards through flight history experience. Results relating to this segment of the data suggest that individual pictorials and pictograms may be comprehended at a higher rate than the briefing card as a whole. Results also reveal that element size and the complexity of the briefing card as a whole, as well as how the cards are considered, factor into comprehension. Overall results were consistent with the first report, indicating that briefing cards need to be designed with consideration to the novice flying public; preferably with feedback from non-cabin safety experts or frequent fliers.