Adding Game-Like Elements to an Armored Vehicle Recognition Training

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Fratricide accidents, or friendly-fire accidents, contribute to a large number of military operations casualties. Gadsden and Outeridge (2006) noted that misidentification caused a large number of these accidents. Therefore, fratricide accidents should decrease as effective misidentification error reduction methods are implemented (Gadsden et al., 2008; Keebler, Sciarini, Jenstch, Fincannon, & Nicholson, 2008). This research investigated training techniques that manipulated the structure of training rewards to reduce misidentification errors. Participants were trained to identify armored vehicles in one of three two-alternative forced-choice (2AFC) training conditions. Participants received feedback that emphasized response time, response accuracy, or neutral feedback. The feedback was manipulated using game-like points and sound effects. During training, participants receiving accuracy-emphasized feedback exhibited significantly higher training scores than both the speed emphasized, and control groups. As expected, participants who received speed-emphasized feedback performed significantly faster than the other groups during training. Interestingly, when participants were later tested with a video armored vehicle identification task without feedback, the participants who received the accuracy-emphasized feedback were significantly more accurate than the other groups. Future research should further manipulate the accuracy-emphasized reward structure to identify optimal ways to deliver feedback during armored vehicle recognition training.