

Abstract

This study examined whether pilots initiated paper or digital checklist use from environmental prompts accurately when they receive post-flight graphic and limited verbal feedback. Participants were 6 college students who are pilots with instrument rating. The task consisted of flying a designated flight pattern using a Frasca 241 Cirrus Flight Training Device. The dependent variable was the percentage of paper and digital checklist segments initiated at the proper time. A single-subject, alternating treatment, multiple baseline design with withdrawal and delayed probes was employed in this study. During baseline, participants were given only post-flight technical skills feedback. During intervention, participants were given both technical skills feedback and post-flight graphic feedback on both paper and digital checklist use and praise for improvements. A probe was used between 60-90 days to assess any decrement in participant's performance. The intervention produced highly improved paper and digital checklist timing performance, which improved to nearly perfect following the withdrawal of treatment and increased to perfect performance through the probe sessions.