

Understanding Student Pilot Mental Workload in Recreational Aircraft Training

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Abstract : The increase in air travel worldwide has resulted in a pilot shortage. To increase student pilot capacity and lower costs, flight schools have increased the use of recreational aircraft (RA) with technological advanced cockpits in flight schools. The impact of RA based training compared to general aviation (GA) aircraft training on student mental workload is not well understood. This research investigated student pilot (N = 17) awareness of mental workload between technologically advanced cockpit equipped RA training with analogue gauge equipped GA training. The results showed a significantly higher rating of mental workload across subscales of mental and physical demand on the NASA-TLX in recreational aviation aircraft training compared to GA aircraft. Similarly, thematic content analysis of follow-up questions identified that mental workload of the student pilots flying the RA was perceived to be more than the GA aircraft.

Keywords : mental workload, recreational aircraft, student pilot, training

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