Attitudes Toward the Practical Incorporation of Scenario Based Training (SBT) into a Commercial Pilot Training Syllabus: A Preliminary Study

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Background

As aviation moves into its second century, aircraft accidents still occur, though at a very low rate. With that said, the rate of pilot-related accidents in General Aviation (GA) has not decreased when compared against the rate of mechanical-related accidents in GA. According to the 2010 Nall Report, the number of GA aircraft accidents that were pilot-related made up for 73.9% (857 accidents), mechanical-related accidents made up for 15.0% (174 accidents) and other unknown causes made up for 11.1% (129 accidents) of all accidents that year (Kenny, 2011). According to Kenny (2011), “Most pilot-related accidents reflect specific failures of flight planning or decision-making or the characteristic hazards of high-risk phases of flight.” As pilot-related accident rates continue to be higher than mechanical-related accidents, exploration and experimentation is being conducted to look for new ways to address this issue.

Pilot vs. Mechanical Related Accidents in General Aviation

Data from the 2010 Joseph T. Nall Report shows General Aviation accidents from 2001-2010 comparing pilot induced accidents and mechanical induced accidents.

Methods

Current attitudes towards the addition of Scenario Based Training into a typical Commercial Pilot Airplane Training Syllabus will be examined. Attitudes of past, current and future commercial pilot applicants such as ERAU flight instructors, faculty and students will be evaluated through the use of a qualitative, 12 question survey. Below is an example of the survey.

Sample Survey (PENDING IRB APPROVAL)

1. I ranked the definition of Scenario Based Training (SBT)
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

2. Scenario Based Training (SBT) can currently be designed and implemented into commercial pilot training to improve flight safety and flight performances.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

3. The Federal Aviation Administration (FAA): The SBT program creates pilot driven learning and problem solving opportunities.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

4. The FITS training program creates higher student engagement in the classroom and in the flight training environment.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

5. Scenario Based Training (SBT) should be incorporated into commercial pilot training manuals.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

References


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Future Directions

- Examine preliminary survey results for the purpose of refining questions and more specific demographic questions to increase the range of results.
- Move the study from investigating attitudes towards incorporating Scenario Based Training into a Commercial Pilot Training Syllabus into investigating attitudes towards incorporating Scenario Based Training into flight training in general.
- Further exploration into utilization of Scenario Based Training in flight training.