Demonstrated Ability

Assessment of demonstrated ability during flight instruction must be based upon established standards of performance, suitably modified to apply to the learner's experience and stage of development as a pilot. The assessment must consider the learner's mastery of the elements involved in the maneuver, rather than merely the overall performance.

In order for a learner to be signed off for a solo flight, the instructor needs to determine that the learner is qualified and proficient in the flight tasks necessary for the flight. The instructor bases this assessment on the learner's ability to demonstrate consistent proficiency on a number of flight maneuvers. Pilot skill evaluations occur during the conduct of courses at FAA-approved schools, and teaching instructors should verify that learners meet the proficiency requirements prior to sending them for any stage check.

Postflight Evaluation

In assessing piloting ability, it is important for the flight instructor to keep the learner informed of progress. This may be done as each procedure or maneuver is completed or summarized during postflight critiques. Postflight critiques should be in a written format, such as notes to aid the flight instructor in covering all areas that were noticed during the flight or lesson. Traditionally, flight instructors explained errors in performance, pointed out elements in which the deficiencies were believed to have originated and, if possible, suggested appropriate corrective measures. Traditional assessment depends on a grading scale of "excellent, good, fair, poor" or "exceeds standards, meets standards, needs more training" which often meets the instructor's needs but not the needs of the learner.

With the advent of SBT, collaborative assessment is used whenever the learner has completed a scenario. As discussed in Chapters 5, The Teaching Process, and Chapter 6, Assessment, SBT uses a highly structured script of real-world experiences to address aviation training objectives in an operational environment. During the postflight evaluation, collaborative assessment is used to evaluate whether certain learning criteria were met during the SBT.

Collaborative assessment includes learner self-assessment and a detailed assessment by the aviation instructor. The purpose of the self-assessment is to stimulate growth in the learner's thought processes and, in turn, behaviors. The self-assessment is followed by an in-depth discussion between the instructor and the learner which compares the instructor's assessment to the learner's self-assessment.

First Solo Flight

During the learner's first solo flight, the instructor needs to be present to assist in answering questions or resolving any issues that arise during the flight. To ensure the solo flight is a positive, confidence-building experience for the learner, the flight instructor needs to consider time of day when scheduling the flight. Time of day is a factor in traffic congestion, possible winds, sun angles, and reflection.

If possible, the flight instructor needs access to a portable radio during any supervised solo operations. A radio enables the instructor to terminate the solo operation if he or she observes a situation developing. The flight instructor needs should use good judgment when communicating with a solo learner. Keep all radio communications to a minimum. Do not talk to the learner on short final of the landing approach.

Post-Solo Debriefing

During a post-solo debriefing, the flight instructor discusses what took place during the learner's solo flight. It is important for the flight instructor to answer any questions the learner may have as result of a solo flight. Instructors need to be involved in all aspects of the flight to ensure the learner utilizes correct flight procedures. It is very important for the flight instructor to debrief a learner immediately after a solo flight. With the flight vividly etched in the learner's memory, questions about the flight will come quickly.

Correction of Learner Errors

Correction of learner errors does not include the practice of taking over from learners immediately when a mistake is made. Safety permitting, it is frequently better to let learners progress part of the way into the mistake and find a way out. For example, in a weight-shift control aircraft the bar is moved right to turn left. A learner may show an initial tendency to move the bar in the direction of the desired turn. This tendency dissipates with time, but allowing the learner to see the effect of his or her control input is a valuable aid in illustrating the stability of the aircraft. It is difficult for learners to learn a maneuver properly if they seldom have the opportunity to correct an error.

On the other hand, learners may perform a procedure or maneuver correctly and not fully understand the principles and objectives involved. When the instructor suspects this, learners should be required to vary the performance of the maneuver slightly, combine it with other operations, or apply the same elements to the performance of other maneuvers. Learners who do not understand the principles involved will probably not be able to do this successfully.