

Mr Sullivan,

I was flying with a student who has around 95 hours total time, including solo time. We did an initial flight together a few weeks ago in the same aircraft and he flew very well. On that flight, he performed nearly the entire operation, and I helped him with the landing.

On Friday, we did our second flight together and we worked on landings in the pattern. We waited two hours past our additional meeting time for the winds to calm down and for a cell to pass. The winds were 260@7KT when we started.

He flew the first pattern, and we had a bounced landing to which I immediately executed a go-around. I was on the controls with him and took controls for the go-around. On the second pattern, I again had to input considerable assistance on the landing. For the 3rd pattern, I demonstrated how it should be from a short final and he acknowledged what he needed to do. The next laps all resulted in landings where I was loosely on the controls right prior to ground effect. Generally, I was holding back pressure to protect the nose wheel.

On the 8th pattern, Mike was assured in his ability to handle the landing on his own and asked if he can do the whole thing this time. I was prepared to assist with the landing as necessary. We were asked to extend downwind to the shoreline and follow a Lear jet. His altitude management in this lap was good and once on final, he kept the center line well and had a stable descent. This was his best approach thus far. I kept an eye out for the Lear jet and noticed it land just after we turned final.

The winds were now approximately 240@5KT. As we approached short final, Mike was still on centerline at the appropriate airspeed and right on glidepath for the 1,000 foot markers. His approach was nicely stabilized at the time with the appropriate airspeed. As we flew over the threshold, I told him to cut power at the exact moment we had always done, (at about 50ft agl), and he continued to pitch down. I told him to flare now, at the time I had always advised him to flare (about half a flag pole above the ground). After saying NOW for the flare, we still had a nose down attitude through ground effect and were then about to land on the nose wheel first. We were still nose low at around 63MPH, just a couple of feet above the aiming point. My reaction was to immediately step in and add back pressure to avoid a prop strike. Right at that moment, we made a hard impact with the main gear and bounced up to approximately 10ft AGL. I immediately said "we need to go-around" and took controls. I added full power and leveled the nose to the horizon line. I then began to retract the flaps while staying coordinated. We had full power and a level pitch attitude with around 20degrees flaps but the plane began to stall. In this aircraft, the flap lever must be constantly held in order for the flaps to lower/retract. We began falling to the right and the right wing hit the runway marker on the right side of the runway. It proceeded to go nose first into the ground which resulted in a prop strike and the plane flipped over.

After analyzing what happened, I can identify multiple mistakes that led to the event. For one, my decision to provide instruction in an aircraft to which I have limited experience played a role. I have less than 5 hours in a 150 after the completion of this flight. After doing a checkout flight, it went really well so the owner and myself felt it was fine to give dual in it as I have over 200 hours in a 152. However, while I may be fit to fly the aircraft myself under normal operations, giving lessons to a student just getting back into flying was a poor decision. I did not have a full physical understanding of how the 150 operates differently from a 172 or even a 152 in an emergency go around. This leads to the second issue. While I followed the normal procedures

listed in the manual, (add full power, level the nose, retract flaps by 10 degrees), it was clear that retracting the flaps at all was a mistake. The 150 carries minimal horsepower in comparison to the 172 and therefore acts differently, especially in the case of generating lift on a go-around. While retracting the flaps to 10 degrees may be what's stated in the manual, had I had a better understanding of its performance in actual time, I would have likely made a decision to hold off any retract any flaps. Since we were on the backside of the power curve, we needed to preserve all the lift that we could. And retracting the flaps from 30 to 20 degrees took off too much lift in comparison to the drag taken out, which rendered into us sinking, so close to the ground. One other thing is that I should have applied more assistance on the landing. I had done so on our previous landings. I felt that he was getting stronger so I wanted him to try it with less input on this particular one, but I should have been 100% confident in his ability to do it without me applying any direct pressure on the yoke. Had I been more present on the controls with him instead allowing him to do the entire landing, we would not have had the hard touchdown which led to the bounce.

Upon analyzing and understanding my mistakes, I can also identify what I'd do differently to avoid an accident in the future. For one, I will commit to understanding the aircraft and how it performs (especially in a go-around situation) before giving instruction in it. I'd never taken a lesson in a 150 so I will make sure I take at least a lesson on stalls, go-arounds and emergency procedures, before giving any sort of instruction. This way, I can see for myself on how well the aircraft performs under the manuals guidelines and if I should deviate from it at all. Additionally, I will be more cautious with giving students controls on a landing. I was mostly sure he would execute a smooth landing but he did not. Had I been more stern on not allowing him to do it himself yet, we would have avoided the issue as I would have helped him flare before it was too late. In the future, I will not allow a student to land with no pressure from myself on the controls unless I am absolutely sure they will make a landing with the proper form and technique in a safe manner. In supplement to that, we will perform stalls and slow flight before any landing instruction, regardless of their experience level. This will ensure that they are competent in understanding the controls when on the backside of the power curve. Finally, if I ever fly a 150 again or similar light aircraft, I will wait to retract any flaps on a go around. I have realized you need all the current flaps in place to sustain the already limited lift. My plan is to take lesson with a certified CFI on go around procedures in a 150 to ensure the most appropriate execution and thorough of understanding of how it behaves. I am committed to learning from the mistakes made and ensuring that it won't happen again.

Sincerely, Alex