Beyond Good Flying

Passing on aviation knowledge involves skills quite separate from being able to fly well. Here, students and instructors describe what works, and what doesn't.

A n effective instructor understands human psychology, especially the different ways students learn best. That's the opinion of CAA's Principal Aviation Examiner, Bill MacGregor, who says it's all about understanding the 'how' of mastering a task.

"If you understand how individual students learn, you can tailor your delivery of instruction to that. They're made comfortable by that, learn faster and more effectively, and their flying reaches a higher standard."

D, C, and E-cat instructors are expected to attend an approved Instructional Technique course, so they can gain skills that have nothing to do with being a good aviator, but everything to do with teaching how to be one.

"Telling isn't training," says Kaye Sutherland, a long time instructional techniques instructor with Air New Zealand. "It's a given that you're a subject matter expert and a role model, but that's not enough. Good trainers need to connect with the student, and establish rapport at the start of the training. "Set clear objectives so students know what is expected of them, and what is being assessed. Establish the gap, find out what the student knows about the topic – don't assume they will know. Ask insightful questions to elicit knowledge and check understanding.

"Get them to demonstrate skills to ensure they're meeting the standard set in your lesson objective. Check for attitude – hard to change but part of the training package – knowledge, and skills. Be the guide on the side, not the sage on the stage! Take the learner on a guided didactic tour managing time and content. Assess frequently to ensure learning is happening.

"Don't ask them if they understand. Make them demonstrate. Use a variety of methods, other than talking at them, to cater for different learning and personality styles.

"Finally, think like a beginner. Remember what it was like for you starting out. Use stories to engage them. It's not about how much you know. It's about making it easy for learning to happen."

One Size Doesn't Fit All

An A-cat instructor with Massey School of Aviation, lan Burgers, says he's conscious of each student's personality type.

"I try to figure out what kind of learner they are, because everyone is different. Some like to see everything written out on the whiteboard, because they're visual learners. Others may be happy to listen, because they're aural learners."

The third type of learner is the kinesthetic student, who needs to be 'doing' to learn well.

"An instructor needs to be thinking 'what's the best way I can communicate with this particular student?'" says lan.

"If the student hasn't grasped something by listening, for instance, maybe we need to get them to watch an engineer at work, or re-enact a flight on the ground, with plenty of different scenarios thrown in."

Massey student Arjun Jethmal – and now a First Officer with Susi Air in Indonesia – found that his primary instructor adapted training to fit Arjun's personality.

"I'm a visual learner and hands-on. Learning through a lot of theory does not suit me particularly.

"Because my instructor understood that, and tailored the instruction to my preferred style of learning, I didn't have to struggle to absorb the information. I could spend more time and mental energy on things I needed to improve."

Former Nelson Aviation College (NAC) student – and now B-cat at NAC – McKenzie Rayes, says her instructor knew her favoured way of learning.

"My instructor knew that it was important for me to understand the theory behind an exercise. For example, when I began in the circuit, I was having trouble with flaring. She took time to sit me down and explain the aerodynamics behind flaring. Once I understood that, I was away."

Overcoming Learning Barriers

A former C-cat with NAC – and now instructing in Botswana – David Turney, teaches both local and international students.

"There are language barriers I have to overcome with international students. I constantly ask questions to make sure they understand what I've just taught them. I also try to slow the speed of what I'm saying."

"Because English is their second language," says lan Burgers, "it's important for an instructor to avoid slang or sarcasm. They could take you literally.

"For instance, saying, 'Looks like great weather to the north again...' when it's actually bad weather, or, 'You're coming in too hot' could cause obvious issues."

CAA Training Standards Development Officer, David Harrison, agrees. "Instructors need to use simple, non-technical language until the student gains a bit of experience."

NAC A-cat instructor, Amanda Meates, recommends learning more about each student's culture, and the impact of that culture on how they learn.

"For example, when students from other cultures are in command, they often ask for permission to do things. You need to be aware of that natural submissiveness, and make it clear to them that it's all right for them to take control. Slowly, they learn how to do that.

"We may also alter the time frames for students to learn something. If, for instance, someone is struggling with doing two things at the same time, we might get them to practise on the ground initially, so they get used to doing the two things together. If that means they take a bit longer to learn the task, that's okay, because they become a more skilled pilot."

Complete the Cycle

lan Burgers says he outlines very clearly his expectations of students.

"Even before we step into the cockpit, we do a thorough briefing on what competencies are expected, and what the limitations are. We can then easily go back to these during the debrief and ask if we achieved the objectives."

David Turney expects students to spend a lot of time on the ground, learning each procedure before they get into a plane to do it in the air.

"That's why we have briefings before each flight. It saves them money in the air if they already have a good idea of what needs to be achieved."

Former Nelson Aviation College student – and now C-cat with NAC – Oli Lusk, appreciates the preflight briefing.

"It means they're not trying to teach, and we're not trying to learn, an entirely new concept while we're also flying."

Oli says now that he is an instructor, he also really appreciates the value of the debrief as an instructional tool.

"They give the student something to think about before the next flight."

David Harrison agrees, saying the debrief completes the 'instructional cycle'.

"It's an essential part of the learning process, to highlight the student's strengths, and define the areas needing improvement, and how to improve them."

Former NAC student – and now CPL (A) – Josh Collecutt, says the debriefs really help.

"The instructor recording and rating my flying performance definitely helped me identify aspects of my flying that I was struggling with. Or excelling at!

"I found that as a student, debriefs were a really beneficial and important part of learning. They allow the student and instructor to come together and reflect on the flight soon after it is completed, and while it is still fresh in their minds."

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Open and Approachable

Instructors being open, friendly, and approachable, ranks highly with students.

"For me, it's important that an instructor is easy to approach," says Josh Collecutt. "Someone who's willing to help me with my questions or concerns."

McKenzie Rayes has a similar view. "The last thing you need in the cockpit is confusion and misunderstanding. You have to be on the same page. That can be hard for new students, and especially difficult if you're shy or timid. That's why it's so important the instructor is accommodating, welcoming and approachable to newer students. Well, to everyone, really."

When is the Right Time?

Determining the right time to give feedback is one of the less straightforward aspects of good instruction.

A Massey flight instructor, Sophie Copplestone, recounts the experience of a friend whose instructor would wait some time to tell him he had done something incorrectly.

"If the instructor always waits until you're back on the ground to give you any feedback, there isn't much learning to be had from that. "Some things can wait, but other, more safety-critical things need to be brought up immediately, so bad habits don't form."

Massey B-cat instructor, Casey Glynn, agrees. "If the student has made a mistake at a crucial time, I think they must be told right then.

"But an instructor has to be careful that the student doesn't feel crushed by negative feedback. It could affect their performance as well as their confidence. If the student is concentrating on flying the aircraft, often what you're saying isn't really being heard.

"I prefer to make sure the student has completely finished the exercise before I talk about what they did well, and what they need to do next time to make it better."

Bill MacGregor also agrees that mistakes should be corrected as they occur.

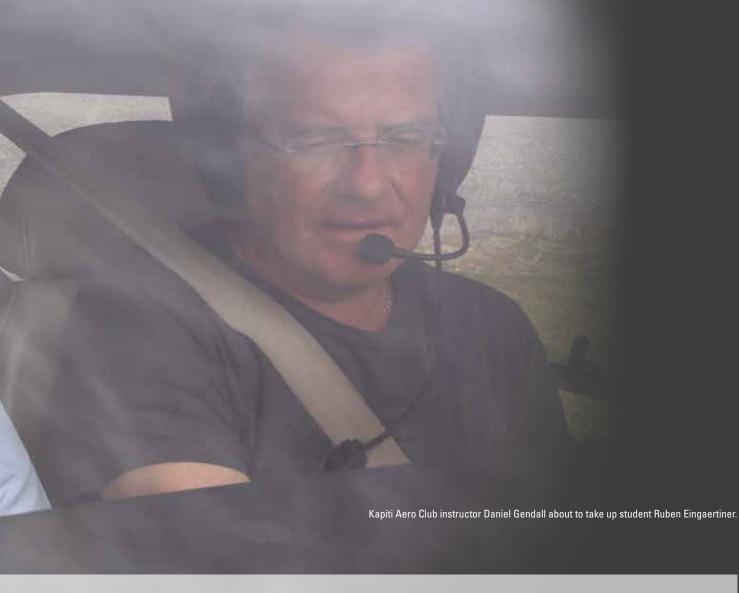
"Whereas the post-flight debrief summarises the flight and its learning points."

Clear Communication

Former Massey student – and now CPL (A) – Shinga McLeod, has witnessed the effects of poor communication.

"One of my instructors was regularly failing a particular student in my class, because the instructor wasn't happy with that student's progress and planning.

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"But that instructor really just failed to explain to the student exactly what he was looking for. And all that happened was that the student lost motivation."

"What you need is basic, clear communication," says lan Burgers. "Especially for international students, nothing over the top that complicates things, and not too many words."

Don't Stress Out

Instructors should understand how stress can affect the quality of communication in the cockpit.

David Turney says if a student feels overwhelmed during a flight, it's difficult for them to be really taking in what is being said to them.

"Environmental stressors are a pressure, for instance, poor weather up ahead, or a loud engine noise.

"Or if the airspace is busy, there will be lots of aircraft making lots of radio calls. That makes it difficult to maintain good communication because we can't speak while we're listening to other pilots' radio calls."

Casey Glynn, as a student, learned from an unpleasant experience in the cockpit about what being a good instructor involved.

"I was having trouble with circuits, especially landing. The flight had been long with both dual and solo circuits at two different aerodromes. The instructor was telling me after each approach that it was not up to standard.

"I knew I was struggling, and I was disappointed with myself and my performance. But all I was getting from my instructor was a sense of frustration.

"Finally, we had to do a go-around as the approach wasn't right. The instructor told me that I was not trying, and that I thought the situation was funny. That really upset me.

"There was, needless to say, a lot of tension in the cockpit.

"Looking back on that flight, I think I learned more about communication, and the influence an instructor has on a student and on the cockpit environment, than I did about doing an approach to land."

Massey's lan Burgers has learned to appreciate the 'how' of instructing is just as important as the 'what'.

"The more I instruct," he says, "the more I realise it's all about the people, and not the actual flying." ■

See also

"The Instructor as a Professional" in the November/ December 2016 issue of *Vector*, and "The Flight Examiner as a Professional" in the January/February 2017 issue.