





**Can't do, but
want/need to**



**Can do with
effort**

A snowboarder is captured mid-air, performing a backflip over a snow ramp. The snowboarder is wearing a dark jacket and light-colored pants. The ramp is a large, curved structure made of snow. In the background, there are spectators, some sitting on the snow, and banners for the Vancouver 2010 Winter Olympics, including the Olympic rings and the word "VISA". The sky is overcast and grey. The word "Mastered" is written in large, bold, yellow letters across the center of the image.

Mastered





**Dude, sucking at something is the first step
towards being sort of good at something**

Hard Practice

Long Practice

Better Practice

Deliberate Practice

*"Deliberate
Practice."*

Worst. Name. Ever.

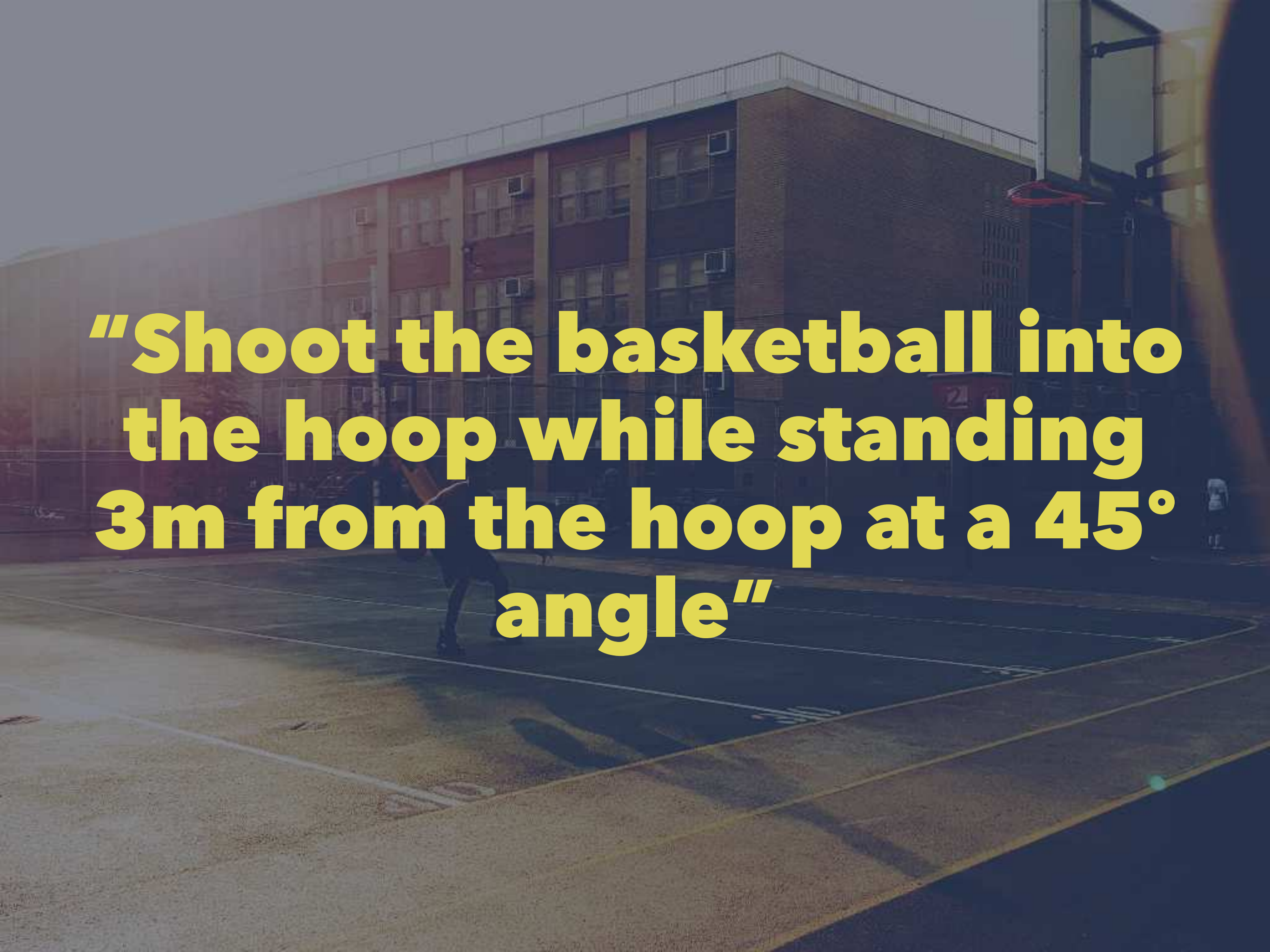
– Kathy Sierra

Design practice sessions

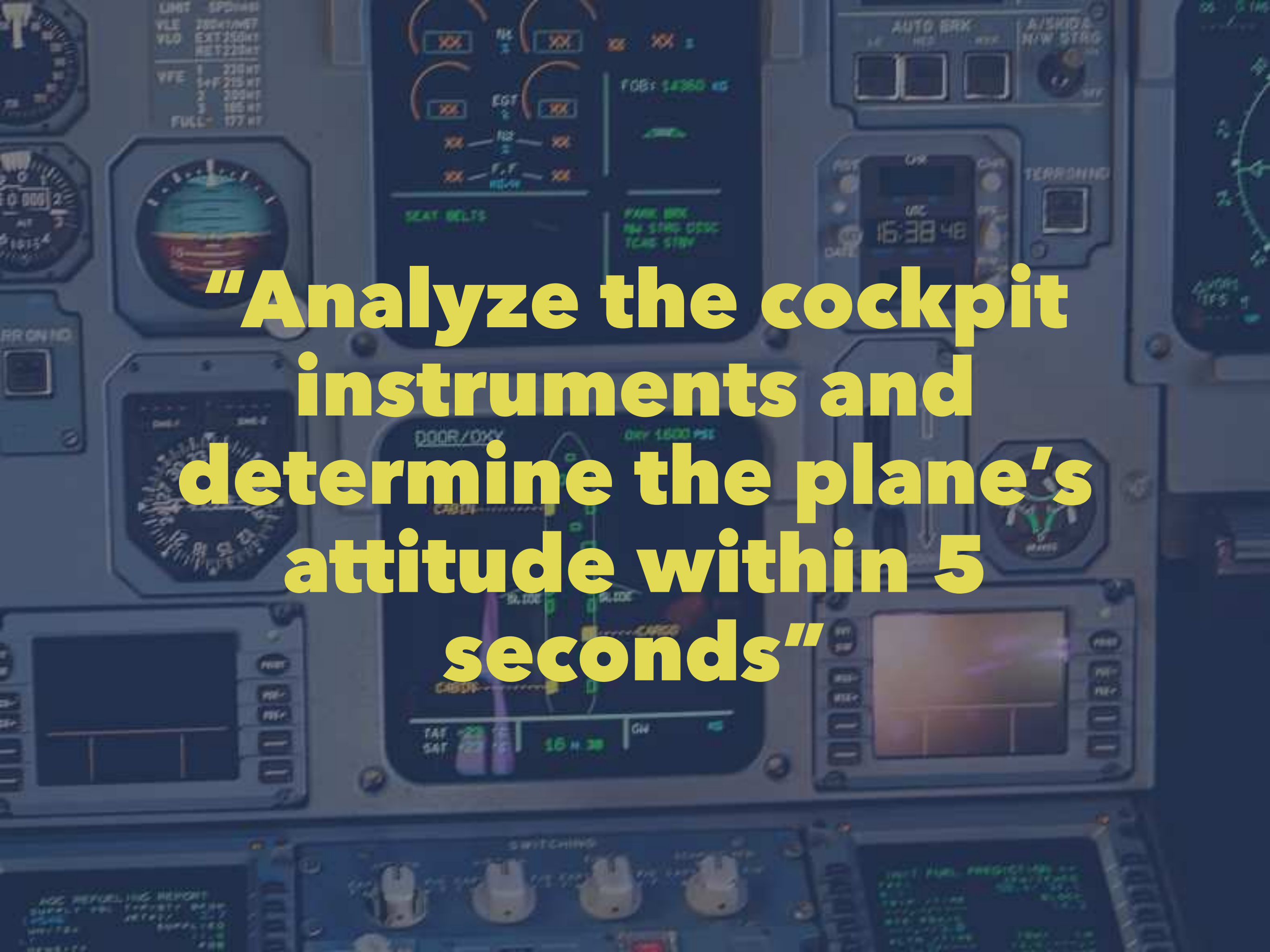
Clear & specific outcome

95% improvement

Small & focussed sessions

A photograph of an outdoor basketball court. In the background, there is a large, multi-story brick building with many windows. A basketball player in a dark jersey is in the middle of a jump shot, with their arms extended upwards. The court floor is dark with white and yellow lines. A basketball hoop and backboard are visible on the right side of the frame. The text is overlaid in a large, bold, yellow font.

“Shoot the basketball into the hoop while standing 3m from the hoop at a 45° angle”



"Analyze the cockpit instruments and determine the plane's attitude within 5 seconds"

**“Write & run a program (without errors)
that accesses and displays data from this
database.”**

```
382 VERBOSE_RBT_VERIFY
383 #else
384 FAIL("Red violation @ %d", n);
385 #endif
386 fprintf(stderr, "Red violation\n");
387
388 return 0;
389 }
390 #ifdef VERBOSE_RBT_VERIFY
391 if (left)
392     printf("Left\n");
393 if (right)
394     printf("Right\n");
395 height_l = rbt_verify_n(left, compare);
396 height_r = rbt_verify_n(right, compare);
397
398 // Verify BST property.
399 if (((left != NULL) && (compare->compare(GET_DATA(
400     ((right != NULL) && (compare->compare(GET_DATA(
401 #endif
402 #else
403 FAIL("BST violation");
404 #endif
405 fprintf(stderr,
```

태권도

A person wearing a scuba tank and mask is in the water, appearing to be in distress. The water is dark and turbulent, with a rocky coastline visible in the background. The person's head is tilted back, and their mouth is open, suggesting they are struggling to breathe.

Too Hard?

Keep breathing. That's the key. Breathe.

**Break the skill
down**

**Reduce
performance
criteria**

**Practice makes
permanent**

**Locks in whatever is
practiced**

**Half-a-Skill
beats**

Half-assed skill

**Not all practice
should be
deliberate
practice**

**"Work on a project, e.g.
create a small game in a
new programming
language"**

"Work through a step-by-step tutorial"

"Listen to a lecture or a presentation"

**Figure out what
do deliberate
practice**

**Playing/
performing/
discovery still
important**

"Badass" by Kathy Sierra

"Brain Rules" by John Medina

"The Talent Code" by Daniel Coyle