# Week 1

Based on the readings from the above website, what do you think would be the greatest challenge you would face in developing a research proposal, and how could you successfully overcome that challenge?

## Initial Post

My greatest challenge in developing a proposal is selecting a topic. Call it an unhealthy ability to “just live with it”, I find myself admiring those who can see the limitations in “what is”. Browsing news articles and trade magazines, as suggested in our readings, might give me some ideas. My classmates have made some brilliant observations as well. I expect I’ll find inspiration there too.

I do see room for improvement in aviation. But simplifying the idea to something workable and useful are my next obstacles in developing a proposal.

“Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius—and a lot of courage to move in the opposite direction.”

That quote is credited to Albert Einstein by some and E.F. Schumacher by others. Either way it clearly describes where I am and where I am trying to go. I am hoping this class can help.

I suspect the next hardest task will be the literature review. As an agonizingly slow reader with a touch of ADD I spend a ridiculous amount of time formulating search terms, sifting through results, and chasing squirrels up unrelated trees. I have struggled with that all my life. Any suggestions?

This little exercise in self-reflection has me grateful I made it this far!

## Response to Jake

Hi Jake. You nailed one of my most frustrating personality traits. I believe I know the answer and want to conduct an experiment to prove it. My question and my design are doomed to bias at the very start.

To believe I know how to fix something requires that I know something is wrong. But the whole point of research is to determine if something is wrong in the first place! It is no surprise that we have a name for the mindset that says, “I know what’s wrong and I know how to fix it”. It’s called the Type 1 Error – rejecting the NULL hypothesis that your intervention did nothing when it actually did exactly nothing!

## Response to Melissa

Thank you, Melissa. You clarified the whole point of this class for me! Even in this week of preparation I have been lost in the weeds of “how would I prove I know the answer to this?”. First, this is not an experiment design; it is a research proposal. Second, as I mentioned to Jake, I don’t know anything – that’s why I want to do the research!

## Response to Maureen

Thank you for your thoughtful post Maureen. You’re either a natural at this or you’ve done this before! I plan to follow your advice and skim papers I think are interesting or relevant. It’s likely I’ll find inspiration just in that review.

Your response to Tyler was excellent as well. I tend to just jump at the first task causing me stress. If I take the time to plan and schedule my efforts, I’ll be much better organized.

## Response to Jake Again

I hear the wheels turning Jake…and I think we’re thinking similar things. I’ve always had a problem with safety through policy. I often wonder if we could measure the effectiveness of policy. It seems to me an effective policy must be:

* Executable – not too cumbersome
* Understandable – operators understand the necessity of the policy
* Memorable – can they remember the policy in the heat of the moment
* Accepted – operators buy in and execute it for their own reasons

# Week 2

## Initial Post

Discuss in one or two paragraphs, what topical area in human factors appeals to you the most. That is, present, in a general fashion, an area you would like to do research if given the opportunity. As usual, make sure you respond to AT LEAST one other student in the course.

I am interested in the impact of technical advancements on aviation safety and accessibility. One can argue many advantages for automation and advanced avionics. Some include a reduction in workload, improvements in operational accuracy, and better performance in less-than-ideal conditions. One can also suggest technical advancements have led to longer training times, confusion from abnormal feedback, and pilot deskilling.

I would like to investigate training plans that keep automation separate from aviation. Why does it take nearly 20 hours to solo today’s new student when it supposedly took 10 or less to solo a student in 1980? Would we improve aviation safety by training automation as little more than a tool of aviation? The focus of training would remain firmly in the stick and rudder skills that make airplanes fly. Instrument training would differentiate the control instruments of pitch and power from the performance instruments of airspeed and altitude. Would that improve a pilot’s performance in unexpected situations?