



Telling is Not Teaching

Where the New School
Is
Old School

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FAA – H – 8083 – 9A

Three parts, Nine sessions

- Educational Psychology
 - 1 Human behavior
 - 2 Learning process
 - 3 Communication
- Curriculum
 - 4 Teaching process
 - 5 Assessment
 - 6 Planning instructional activity
- Professionalism
 - 7 Responsibilities
 - 8 Techniques
 - 9 Risk



Session Two

The Learning Process

Learning is natural

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Focus on the Learner

- More right rudder...
- A very common misconception that leads to a major disconnect is that because.....
- “I told you” then now you know!
- The perspective of the teller – increase efficiency
- The perspective of the teacher – help the learner

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A Teacher IS a Learner

- A shift in focus from a teller to a teacher allows – in fact causes - a relationship to blossom
- As the focus shifts we become a learner again
- A greater depth of knowledge is required to see it from the learners perspective
- Stay tuned in – Prof Dev, WINGs, other CFIs....

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A Teacher IS a Learner

- This is reflected in an ***ATTITUDE***
- Think back on a teacher who
 - was not concerned about themselves and focused on what you needed to learn whatever it was
 - showed you that ***they*** were always learning new things
 - told you when they didn't know ***and*** followed up showing you how they went and found out
 - went to a seminar because they wanted to ***not*** because they had to

Learner Centered Curriculum

- Lessons tailored to the learner needs is what it means to be learner centered
- What about my FAA lesson plans, my flight schools lesson plans?
- How do I make sense of it all?.....
..... start by asking “Who is my learner?”
- “*Oh No!* Are you telling me that all of my lesson plans that I had to create for my CFI check ride should be tossed out?!”

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Learner Centered Curriculum

- No, I'm not telling you that, but more on that in chapter 6
- USE your lesson plans to **guide** you to help the learner make connections and not as the **script** to a one-person show
- The student must be engaged... if not... why not?
- Your relationship is key here

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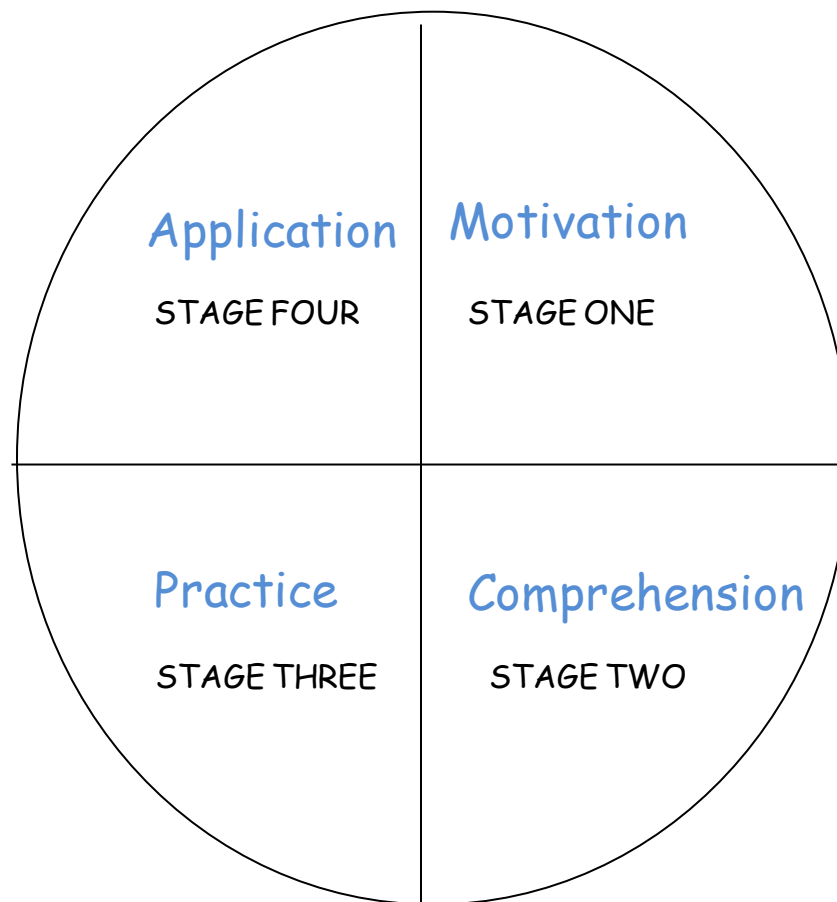
Learner Centered Curriculum

- Is the lesson one dimensional?...
- Are they are not making connections?...
- Are you boring?....
- Are they airsick?....
- Do they understand?..... If you ask them how do they answer?.....
- You must shift from the lesson **to** the student

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Learner Centered Curriculum

- The 4 part cycle helps us make sense of it all
- Think guided chaos
- The cycle helps us focus on the needs of the learner



Learning Cycle Part 1

MOTIVATION

Principle:

Learning is Purposeful

Learning Cycle Part 1

MOTIVATION

- Without motivation nothing else happens. Think of a cup made of tissue paper – pour in the water.....and?
- Think of a cup made of glass – pour in the water.....and? When we are engaged in something we WANT to do, or something WANT to learn we do better – when we're motivated we are the glass
- When we do better we feel a sense of accomplishment and competence, it is reinforcing

Learning Cycle Part 1

MOTIVATION

- Part 1 of the cycle engages with the learners sense of *purpose*
- Engaging with this purpose *can be* the attention getter
- This may also be known as “the set” and it can go by other names as well
- We are focusing the learners attention

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Learning Cycle Part 1

MOTIVATION

- These activities can be short, sweet and simple
- Sometimes it's as easy as answering the learners question "Why.....?"
- Adult learners may very often ask you – "Why am I learning this?"

Learning Cycle Part 1

MOTIVATION

- Why am I learning this? - An honest answer builds trust and confidence and builds the relationship
- So, why S-Turns? My student may say; “I’m a busy person, my Cirrus 22 is an expensive machine, I don’t plan to do these so why am I doing them JUST for the examiner?”

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Learning Cycle Part 1

MOTIVATION

- Instructor: Are you going to fly the airplane in the wind? Are you going to turn it?
- Student: Duh, yes!
- AFH FAA-8083-3B, 6-10... “this maneuver presents a practical application for the correction of wind during a turn, by the way **Not** just for the examiner.”
- (Sound of penny dropping) A PURPOSE!



Learning Cycle Part 2

COMPREHENSION

Principle:

Learning is Multifaceted

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Learning Cycle Part 2

COMPREHENSION

- In this phase Perception will play a key role
- Any learning relies on the ability to perceive
- Perception results from making *sense* of an experience and attaching *meaning* to it
- To *do* this it must make it *to* the brain in the first place, this is via perception

Learning Cycle Part 2

COMPREHENSION

- Multifaceted works best - why? - because it aids perception
- Association of word patterns such as mnemonics is helpful, even though rote at this point
- Perception can lead to understanding and thereby to concepts, application and correlation
- The proverbial ***lightbulb!***

Learning Cycle Part 2

COMPREHENSION

- In this phase we are not implying that the learner *has* comprehension, but rather during this phase we work *toward* comprehension
- The focus is now on the background knowledge needed
- A key principle: Learning is related to prior learning. (AIH - Constructivism)

Learning Cycle Part 2

COMPREHENSION

- We are going to introduce NEW information
- When we DO that:
 - we connect to what they already know
 - we go from simple to complex
 - we break it down as far as the learner NEEDS it broken down
 - limit to ~ 7 bits of information for the short term memory (7 + - 2)

Learning Cycle Part 2

COMPREHENSION

- Example: NavLogs and cross country
- How much are you going to introduce at once?
 1. TC
 2. MC
 3. Variation
 4. MH and WCA
 5. Winds aloft
 6. Lat Long
 7. Sectional charts
 8. Pilotage
 9. Time speed distance
 10. GS calculations

Learning Cycle Part 2

COMPREHENSION

- Example: NavLogs and cross country
- How much are you going to introduce at once?
 1. TC
 2. MC
 3. Variation
 4. MH and WCA
 5. Winds aloft
- Stop with these 5
- Practice
- THEN introduce
 1. Ground speed
 2. Re-connect with WCA
 3. Time/Speed/Distance

Learning Cycle Part 2

COMPREHENSION

- You want the student to focus on the content and how it connects
- Don't over teach before you allow time to *practice* with it
- Move to Practice **BEFORE** overload occurs

Learning Cycle Part 2

COMPREHENSION

- We are going to ***use as many*** methods and media as we can to engage as many senses as we can
- THAT is multifaceted!
- METHODS: what I do, MEDIA: what I use
.....the possibilities are limitless.....

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Learning Cycle Part 2

COMPREHENSION

- Teacher centered: I am the focus of the activity
- Learner centered: THEY are the focus of the activity
- Not everything will be learner focused, but ***please*** do ***not*** make everything teacher focused
- Mix it up! Use what works best for the situation
- Consider the brainstorming that can be done just by typing into an online search engine!

Learning Cycle Part 3

PRACTICE

Principle:

Learning is a Result of Experience

Learning Cycle Part 3

PRACTICE

- Think about the FAA definition of Learning: A change in behavior
- Having been exposed to information about Left turning tendencies.....
- Let's say that I have gained some understanding and can relate the concept to a climbing airplane
- If I do ***not*** put it into practice, I've not learned it!

Learning Cycle Part 3

PRACTICE

- To practice it, I really don't need you along...
- I can use trial and error!
- Who taught Orville and Wilbur about adverse aileron yaw?
- However, to do it most ***efficiently*** – not to mention SAFELY – practice ***guided*** by an expert

Learning Cycle Part 3

PRACTICE

- I have to incorporate it into my behavior - to do **that** I have to master it - and to do **THAT** I have to practice it.....in other words I have to EXPERIENCE it!

Past and Present

- Experience in the *present* is connected to past experience. This is the *construction* of knowledge. With no memory of the past it is like learning the same thing over and over. The movie Ground Hog Day

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Learning Cycle Part 3

PRACTICE

- Experience from the ***past*** is what we can recall and apply
- This is the importance of an exciting and stimulating experience! It makes more neural connections or hooks, the more hooks, the greater chance of it connecting to some other experience and making sense and having meaning
- This is where practice guided by an expert comes in
- This ***greatly*** increases the chance of rapid and correct recall in the future

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Learning Cycle Part 3

PRACTICE

- This is how practice with a expert guide is so powerful, we get farther faster
- The CFI must guide the practice carefully
- First of all, you have to LET them do it
- They will make errors.....of course.....now what?
- Errors corrected **together** in real time is the **BEST** example of effective assessment, they will remember it correctly and thereafter practice it correctly

Learning Cycle Part 3

PRACTICE

- Properly size the chunk of what is being taught so as not to overload them in Comprehension AND not to overwhelm them in practice
- Move back and forth between comprehension and practice like the pendulum of a clock

Learning Cycle Part 3

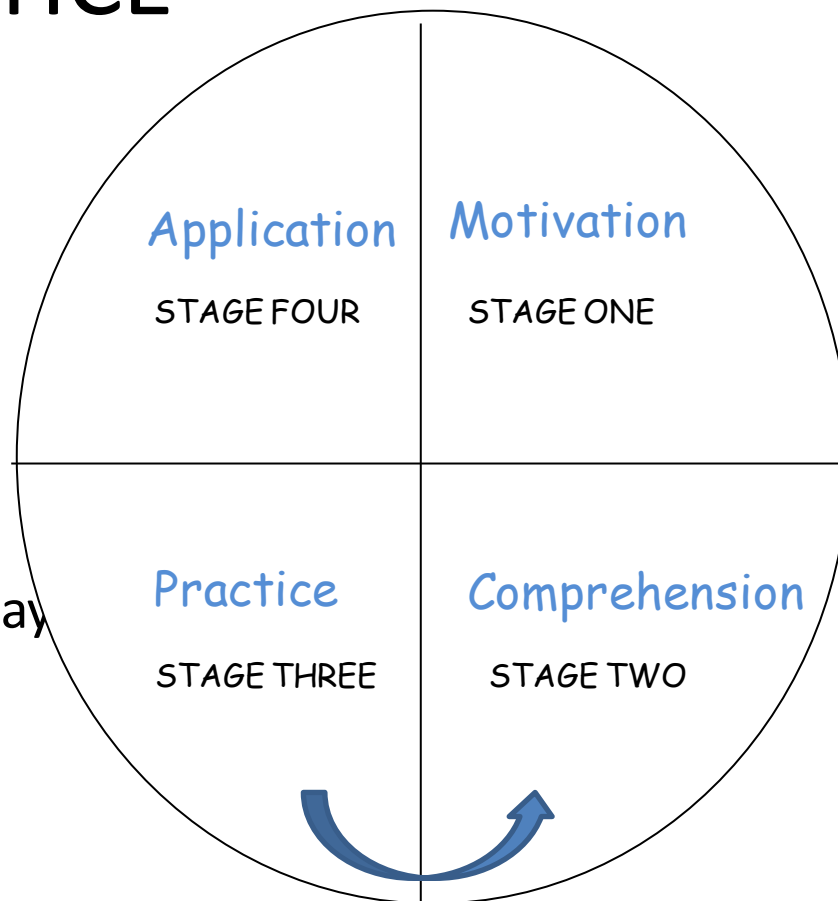
PRACTICE

EXAMPLE:

- 1) The effect of AS on control
- 2) Flight at different speeds

- 1) MCA
- 2) Power off stall

- 1) Round out and flare at altitude
- 2) Round out and flare over the runway



Learning Cycle Part 3

PRACTICE

Remember:

- Let them practice
- Correct promptly
- Guide ***both*** physical safety and their psychological safety

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Learning Cycle Part 4

APPLICATION

Principle:

Learning is an Active Process

Learning Cycle Part 4

ACTIVE PROCESS

- It is here that the learner employs their skill, knowledge and attitude independent of you
- They are actively bringing everything together: rote - understanding – application – correlation – and their ADM and judgement
- They are now ***demonstrating*** their CHANGE in behavior

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Learning Cycle Part 4

ACTIVE PROCESS

- Your role has changed from actively coaching to being the mentor on the side, **they** are now fully applying, they are fully active
- Assessment and evaluation can happen in any phase
- However **summative** type assessment / evaluation will happen here in the application phase
- Your presence as a role model will be important here
- As important or even more important than when you were with them in the right seat

Completion activities

- *Examine how you teach any given flight skill using the 4-part learning cycle; look at ways to apply the cycle to improve your teaching.*
- *Practice taking any given flight skill and breaking it down into small building blocks.*

Competencies

- *Competency 3: Reflect upon your own teaching and make an honest self-assessment by asking yourself if you are teaching or is you are telling.*
- *Competency 4: Transform a lesson from teacher centered to learner centered.*