

OBJECTIVE Understanding of the factors involved with the learning process

DEFINITION A change in behavior as a result of experience

CHARACTERISTICS OF LEARNING

E-MAP

The Map of Education is the E-MAP

Experience Learning is a result of experience
The student learns best by actually doing it

Multifaceted *Elements of* **PP E VMC**
Private Pilots Elect VMC

- P** Problem Solving
- E** Perceptual
- V** Emotional
- E** Verbal
- M** Motor
- C** Conceptual

Active process Learning is an active process
Can't assume student knows because they where thought

Purposeful The student must have a goal or an objective to learn

LEARNING STYLES

LIIS

Liis has style

All students are different, and training should be sensitive to the differences

Left / Right brain

Left	Verbal, analytical, objective
Right	Spatially oriented, creative, intuitive, emotional

Independent / Dependent

Independent	Require minimum guidance
Dependent	Require a lot of guidance

Impulsive / Reflective

Impulsive	Quick sometimes faulty decisions, enthusiastic
Reflective	Uncertain in problem in solving, cautious

Serialist / Holistic

Serialist	Bottom-up, Well defined sequential steps
Holistic	Top-down, Big picture, global perspective

PRINCIPLES OF LEARNING

RIPREE

Ripree's Laws of Learning

Readiness	The student must be willing to learn
Intensity	More exciting is more interesting
Primacy	First experience is strongest, must be taught correct first time
Recency	Last thing learned will be best remembered
Exercise	Things repeated will be better remembered
Effect	More effective if it was a pleasant feeling

HOW PEOPLE LEARN

PIM

They learn by the **Pimp**

Perceptions Stimulating more than one sense aids learning

Factors affecting perceptions

PB TITS

Pretty Big TITS affect perception

Physical organism	Sight, hearing, etc
Basic needs	Maintain and enhance the organized self
Time and opportunity	Afford the time needed to reach goal
Individual's goals	Have e goal and motivation to reach it
Threat	Fear narrows the perceptual field
Self-concept	Have a positive self-image

Insights Relating and grouping perceptions into a meaningful whole

Motivation	Subtle or obvious	- The most important factor in learning
	Positive	- Rewards - Personal - gain, comfort or security - Social - group approval and public recognition - Self-satisfaction
	Negative	- Fear, threat and reproof - Only be used for over-confident students

LEVELS OF LEARNING**RUAC**

Rote	Ability to repeat without understanding
Understanding	Theoretical knowledge
Application	Ability to apply what has been learned
Correlation	Links to other elements of knowledge

LEARNING PHYSICAL SKILLS**DPPKD**Learn from **David Poupinel**, a **Pretty Kinky Dude**

Desire to learn	The skill must appeal to the student's needs and goals
Patterns to follow	Instructor must provide a clear step-by-step example
Perform the skill	Student must practice the skill to get better
Knowledge of results	Inform student of progress as soon as possible
Duration and Organization	A suitable length of time and logical sequence

HOW CAN WE IMPROOVE SHORT-TERM MEMORY**CD-R'S**Store it on **CD-R'S**

Coding/Chunking	Typically by use of association, rhymes and mnemonics
Dramatic	The more dramatic, the greater the impression
Rehearsal	Rehearsal or repetition of a telephone number for example
Senses	The more senses involved the greater the impression

FORGETTING**RID**How we get **RID** of knowledge

Repression	Unpleasant experiences are repressed and forgotten
Interference	Things learned before interfere with what is being learned
Disuse	Things are forgotten when they are not used for a long period

REMEMBERING

RAP AS

You will remember if you **RAP AS** me

- Repetition** Must be meaningful, three or four times is ideal
- Attitude** People learn and remember only what they want to
- Praise** Responses that give a pleasurable return tend to be repeated
- Association** Linking with other information or actions aids recall
- Senses** The more senses that are stimulated the greater chance for recall

TRANSFER OF LEARNING

- Positive** Previously learned material aids in learning new material
- Negative** Previously learned material hinders the learning of new material

HABIT FORMATION

- Building Block** Correct techniques and procedures should be taught from the outset, to avoid having to unlearn bad habits later.

OBJECTIVE Relationship between instructor and student has an important effect on learning. An instructor's role is to draw out and develop the student's full potential, and he must understand their needs, drives and desires.

HUMAN NEEDS (Maslow's Hierarchy of Needs)

PSSSES

People need to PSSSES

Physical	Food, rest, protection from the elements
Safety	Protection against danger, threat, deprivation - Security
Social	Association, friendship, love, belonging
Egoistic	Self-esteem, Status
Self-fulfillment	Realizing one's own potential

DEFENSE MACHANISMS

ABCD RRRF

A Brown Cocker Spaniel's Defense is RRRF

Aggression	Usually expressed by asking irrelevant questions Refusing to participate in class activities, or disrupting activities
Blame projection	Relegate the blame for own shortcomings and mistakes to others E.g. the tennis player examining his racket after a missed shot
Compensation	Try to disguise a weak or undesirable quality by emphasizing a more positive one
Denial of Reality	Ignore or refuse to acknowledge disagreeable realities
Rationalization	Substitute excuses for reasons
Reaction Formation	Development of conscious attitudes opposite to their real desire
Resignation	Students may become so frustrated that they loose interest and give up Especially in advanced stages of a course, if early stages are not grasped
Flight	Escape from frustration situations by taking physical or mental flight Symptoms or ailments, Day dreaming

INSTRUCTOR AS A PRACTICAL PSYCHOLOGIST

Anxiety	Treat fears as normal
Stress	<u>Normal reactions</u> <ul style="list-style-type: none">- Rapid thinking- Actions with increased sensitivity <u>Abnormal reactions</u> <ul style="list-style-type: none">- Sweating, pale, rapid heart rate- Inappropriate reactions - Extreme cooperation, laughter, singing, emotional swings, airsick- Changes in mood between lessons- Severe outbursts of anger
Abnormal student	Evaluation by another instructor Discuss with FSDO Discuss with AME

THE TEACHING PROCESS

RAPP

PreparationInstructor

- Decides content, objectives and goal to be attained
- Checks against syllabus
- Prepares any equipment or materials required
- Prepares a lesson plan

Student

- Home or other special study

PresentationLecture

- New material
- Summarizing ideas
- Showing relationships between theory and practice

Demonstration/Performance

- For presenting a skill

Guided discussion

- Encouraging student participation

Application

Student's application of what the instructor presented, under guidance

Review / Evaluation

Review of the new material covered

Review of the demonstration by the students

The students need to be made aware of their progress

Evaluation should be based on the objective and goals from the lesson

ORGANIZING MATERIAL**IDC***You need your ID for people to C*

Introduction	Attention Motivation Overview
Development	Past to present Simple to complex Known to unknown Most frequently used to last frequently used
Conclusion	Review of material covered

LECTURE METHOD

Preparation	Establish objectives Research the subject Organize the material Plan productive classroom activities
Language	Suitable, grammar and style - Choice of words
Delivery	Read Recite form memory Extemporaneously from outline - Best choice Impromptu without preparation
Notes	Assures accuracy Increases confidence Keep lecture on track
Advantages	Many ideas in a short time Good for introducing a subject Establishing common understanding of principles or facts
Disadvantages	Lack of student participation Little check of understanding May unwittingly present too much information

GUIDED DISCUSSION METHOD**QPS**

The instructor attempts to draw out information from students by use of questions and group discussion. It takes an experienced instructor to be successful with this method.

Questions

Lead-off and follow up

Types

Overhead	- How, why
Rhetorical	- How, why
Direct	- Thomas, tell me about...
Reverse	- Thomas, what do you think?
Relay	- What does the class think?

Effective Questions

Have specific purpose
 Are clear in meaning
 Contain a single idea
 Stimulate thought
 Require definite answers
 Relate to taught material
 Brief and concise

Preparation

Select a suitable subject
 Establish an objective
 Research the subject
 Organize main and subordinate points logically
 Plan a lead-off question for each desired learning outcome
 Guide the students in their preparation

Structure

questions

Introduction	- By instructor
Discussion	- In response to and guided by the
Summary	- Of each section by the instructor
Conclusion	- Review and tie together material covered

DEMONSTRATION-PERFORMANCE METHOD**EDSIE**

Is useful for both ground and flight

Explanation

Demonstration

Student performance

Instructor supervision

Evaluation / Critique

PROGRAMMED INSTRUCTION

Sequenced material with the student making responses at each stage and getting an immediate feedback as to correctness. Review and testing of material until objectives are reached. Uses reinforcement and repetition.

PURPOSE OF A CRITIQUE

To provide direction and guidance to raise the level of performance

CHARACTERISTICS OF AN EFFECTIVE CRITIQUE**FOCCATOS**

F lexible	- Tone, technique and content must fit situation
O bjective	- Not at the person, but at the performance
C omprehensive	- Strength and weaknesses, not necessarily every item
C onstructive	- Need guidance to improve performance
A ceptable	- Students must accept instructor first
T houghtful	- Not insensitive
O rganized	- Logical and sensible
S pecific	- Clear well founded ideas and recommendations

METHODS OF A CRITIQUE**SWISS**

Student led
Written critique
Individual student critique
Instructor-Student
Small group critique
Self critique

GROUND RULES FOR CRITIQUING

Do not extend critique beyond scheduled time
Avoid trying to cover too much
Summarize critique at end
Avoid dogmatic or absolute statements
Avoid controversy with class
Avoid having to defend criticism
Written critiques must agree with verbal

PURPOSE OF AN EVALUATION

To determine how a student is progressing in the course

ORAL QUIZZING

- Questions**
- Fact
 - Thought
 - Who, what, where?
 - Why, how?
- Purpose**
- Check effectiveness of instruction
 - Check student retention
 - Review material covered
 - To retain interest and stimulate thought
 - Emphasize important points
 - Identify points requiring further coverage
 - Check comprehension
 - Promote student participation
- Effective questions**
- Have specific purpose
 - Are clear in meaning
 - Contain a single idea
 - Stimulate thought
 - Require definite answers
 - Relate to taught material
 - Brief and concise
- Questions to avoid**
- Do you understand?
 - Do you have any questions?
 - Puzzles - Too complex or confusing
 - Oversize - Too wide a subject
 - Toss-up
 - Bewilderment - Long with a lot of bogus
 - Catch questions
 - Irrelevant questions

WRITTEN TESTS

- | | |
|-----------------|---|
| Characteristics | <ul style="list-style-type: none">- Reliability- Validity- Usability- Comprehensiveness- Discrimination |
| Test items | <ul style="list-style-type: none">- Supply type- Selection type- True/False- Multiple-choice- Matching items |
| Principles | <ul style="list-style-type: none">- Any competent person would agree on correct answer- Test essential knowledge- Avoid questions that can be answered from general knowledge- Use the working language of the student- Use sketches or diagrams as appropriate- Use of a negative must be highlighted- Avoid double negatives- Avoid catch questions- Each item should be independent not revealing another answer |

PERFORMANCE TESTS

- | | |
|------------------|--|
| A practical test | <ul style="list-style-type: none">- Good for evaluating an operation, procedure or process |
|------------------|--|

CHARACTERISTICS OF A PROFESSIONAL INSTRUCTOR**SAS ALDI***A good instructor works in SAS not ALDI*

Sincerity	- Be straightforward and honest
Acceptance	- Must accept student as who they are
Safety practices	- Safety practices and accident prevention - you set the example
Appearance	- Neat, clean, appropriately dressed and exercise common courtesy
Language	- Use proper and understandable language, you must know your student
Demeanor	- Attitude and behavior - Calm, thoughtful, disciplined and consistent
Improvement	- Constantly improving qualifications, effectiveness and services

INSTRUCTOR RESPONSIBILITIES**PHED***The instructor must PHED students with information*

Provide	- Provide adequate instruction
Help	- Helping students learn
Emphasize	- Emphasize the positive
Demand	- Demand an adequate standard of performance

FLIGHTINSTRUCTOR RESPONSIBILITIES**SEE RAP***The flight instructor must SEE progress and RAP errors*

Supervision	- Pilot supervision during solo and solo cross-country operations
Evaluation	- Evaluation of student pilot ability for solo, solo cross-country and so on
Endorsements	- The authority for endorsing student pilot certificates and logbooks
Recommendations	- Decide when a student is ready to for a practical test recommendation
Additional Training	- Training for flight reviews and proficiency checks
Pilot Proficiency	- The instructors responsibility to keep own knowledge up to speed

SUPERVISION AND SURVEILLANCE

It is the instructor's responsibility, if he observes unsafe or inept operations to try to correct it
If unable, contact Accident Prevention Counselor or GADO Accident Prevention Specialist

INSTRUCTORS ROLE IN MINIMIZING STUDENT FRUSTRATIONS

BIG IMAC

*The instructor must be as a **BIG IMAC** they never cause frustration*

- B**e consistent
 - I**ndividuals
 - G**ive Credit
 - I**nformed
 - M**otivated
 - A**dmit errors
 - C**onstructively
- Inconsistency causes frustration
 - Approach student as individuals, no one fits the average personality
 - Give credit when due, students wish their efforts to be recognized
 - Keep students informed, they like to know what's going on
 - Keep students motivated, they must see the benefits or purpose
 - Students sense bluff and this behavior destroys confidence
 - Criticize constructively, providing explanations or means to fix errors