# LEARNING STYLES

1. Definition:
    - According to ***Keefe*** (1979) learning style defines how a leaner perceives, interacts with, and responds to the learning environment.
    - According to ***Blumhardt JH*** learning style varies with the personality style. As personality style varies from individual to individual, learning style must be different for different individual.
        - As learning style is individualized there is possibility of wide variation in the learning style even in a specific group of students.
        - A specific instructional method may work well for an individual learning but may not produce similar achievement in others.
    - According to ***Irvine & York*** (1995) if students' learning styles are considered in teaching strategies it can improves students' attitude toward leaning and an increase in thinking skills, academic achievement, and creativity.
    - ***Chang WC*** (2004) state that it is the responsibility of teacher to facilitate learning by using student-centered approach i.e. teaching according to students' learning style.
2. There are 3 mains learning style:
    - Auditory
        - Learn by listening
        - Consist of 30% of learners
        - Learn from spoken instruction
        - Written information has little meaning until it has heard
        - Write lightly and it is not always legible
        - Talk while they write
        - Remember names but forget faces
        - Distracted by noise
        - Remember by listening, especially with music
        - May be good speakers, and specialized in law or politics
    - Visual

    - Learn by seeing and writing
    - Consist of 65% learners
    - Relate most effectively to written information, notes, diagrams and picture
    - Can be verbal (sees words) or pictorial (sees picture)
    - Remember faces but forget names
    - Think in pictures, uses color
    - Facial expression tells what their emotions are
    - May be good writer, journalist and graphic design
- Kinesthetic
    - Learn by doing
    - Consist of 5% of the learners
    - Remember what was done
    - Doesn't hear things as well
    - Learn through touch and movement in space
    - Attacks things physically – fight, hit, pound
    - Can appear slow because information is not normally presented in a way that suits their needs.
    - Loves game

3. VARK learning style:

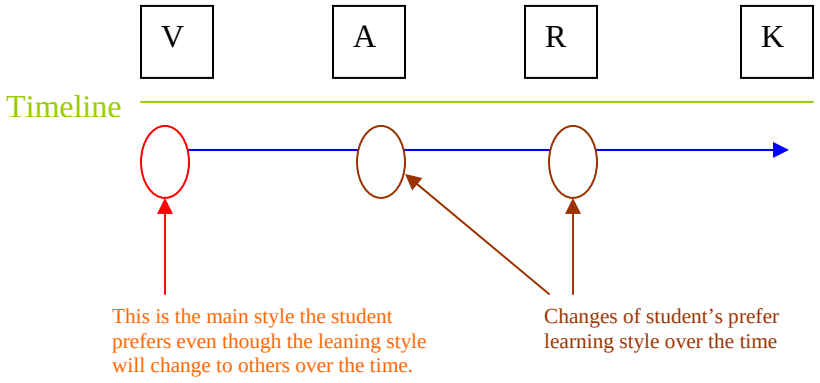
- Visual (V)
    - This preference of information in charts, graphs, flow charts, and all the symbolic arrows, circles, hierarchies and other devices that instructors use to represent what could have been presented in words. It does not includes movies, videos or PowerPoint.
- Aural/ Auditory (A)
    - This perceptual mode describes a preference for information that is heard or spoken. Students with this modality report that they learn best from lectures, tutorials, tapes, group discussion, email, speaking, web chat, talking things through.
- Read/ write (R)

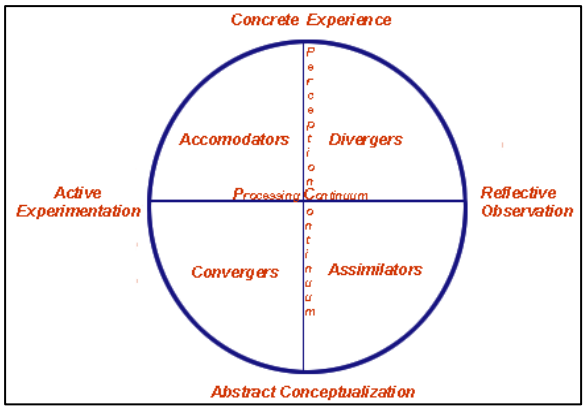
- This preference is for information displayed as words. Not surprisingly, many academicians have a strong preference for this modality. This preference emphasizes text-based input and output – reading and writing in all its form.

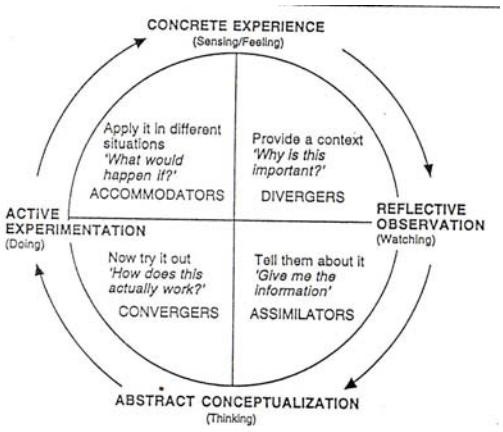
- Kinesthetic (K)
  - By definition, this modality refers to the perceptual preference related to the use of experience and practice (simulated or real). Although such an experience may invoke other modalities, the key is that the student is connected to reality, either through concrete personal experiences e.g. practice or simulation.

4. Kolb's learning style:

- Although Kolb thought of learning styles as a continuum that one moves through over time usually people come to prefer, and rely on, one style above the others. And it is these main styles that instructors need to be aware of when creating instructional materials






- Accommodators
  - Concrete experience/ active experimenter
  - Characteristics:
    - Anything that encourages independent, self discovery is the most desirable.
    - Accommodators prefer to be active participants in their learning.
    - Seek hidden possibilities
    - Need to know what can be done with things.
    - Learn by trial and error.
    - Perceive information concretely and process it actively.
    - Likes variety and flexibility.
    - Risk takers.
    - Function by acting and testing experience.
  - Instructional methods that suit accommodators include:
    - Working in pairs using library/ research centres.
    - Open debate in front of the rest of the group.
- Divergers
  - Concrete experience/ reflective learner.
  - Characteristics:
    - Seek meaning.
    - Need to be involved personally.

        - Learn by listening and sharing ideas.
        - Perceive information concretely and process it reflectively.
        - Interested in people and culture.
        - Believe in their own experience.
        - Function through social interaction.
    - Instructional methods that suit divergens include:
        - Lecture methods
            - Focusing on specifics such as the weakness, strength and uses of a system
        - Hand-on exploration of a system
- Convergens
    - Abstract conceptualization/ active experimenter.
    - Characteristics:
        - Seek usability.
        - Need to know how things work
        - Learn by testing theories in ways that seem sensible.
        - Perceive information abstractly and process actively.
        - Enjoy solving problems and resent being given answers.
        - Function through inferences drawn from sensory experience.
    - Instructional methods that suit convergens include:
        - Above all, the instruction should be interactive, not passive for these kinds of learners.
        - Computer-assisted instruction is a possibility.
        - Problem sets or workbooks can be provided for students to explore.
- Assimilator
    - Abstract conceptualization/ reflective observer.
    - These learners are perhaps less instructor intensive than some other learning styles. They will carefully follow prepared exercised, provided a resource person is clearly available and able to answer questions.
    - Characteristics:

- Seek facts
- Need to know what the expert think
- Learn by thinking through ideas.
- Perceive information abstractly and process it reflectively.
- Less interested in people than ideas and concepts.
- Enjoy traditional class.
- Function by adapting to experts.

- Instructional methods that suit assimilator include:
  - Lecture methods (or video/audio presentation) followed by a demonstration.
  - Exploration of a subject in a lab, following a prepared tutorial (which they will probably stick to quite closely) and for which answers should be provided.