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Module 3

Learning Approaches

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Learning Outcomes (Summary)

1 Meeting Learners' need

2 Learning approaches

3 Innovative techniques to foster learning opportunities

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Learning Area 1
Meeting Learners' need

a) Different types of intelligence: Gardener's Multiple Intelligences Theory
b) Learning styles
c) Kolb's Experiential Learning

Learning Area 2
New Learning approaches

a) Learner-centered education
b) Informal learning

Learning Outcome 3
Innovative techniques to foster learning opportunities

a) Creative Classrooms
b) Techniques to build educational games
c) Teacher as a mentor leader

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Learning Area 1 - Meeting Learner‘s Needs:

The different types of Intelligence

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Keywords:

- Learner‘s needs
- Multiple Intelligences

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Today, there is a growing interest around personalized learning, or student-centered learning

Personalized learning is learning that meets the needs and aspirations of individual learners

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Personalized learning represents an alternative to the classical schooling approach in which there is one standardized teaching method for all:

It tries to address, and capitalize on, learner‘s differences, beginning with the different intelligences and cognitive styles that they possess.

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Until recently, intelligence was considered to involve only logical-mathematical and verbal-liguistic skills.

And those were the areas, in fact, on which traditinal schooling was focusing.

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In 1983, the developmental psychologist Howard Gardner, theoritized the existance of **Multiple Intelligences** opening up interesting scenarios for personalized learning

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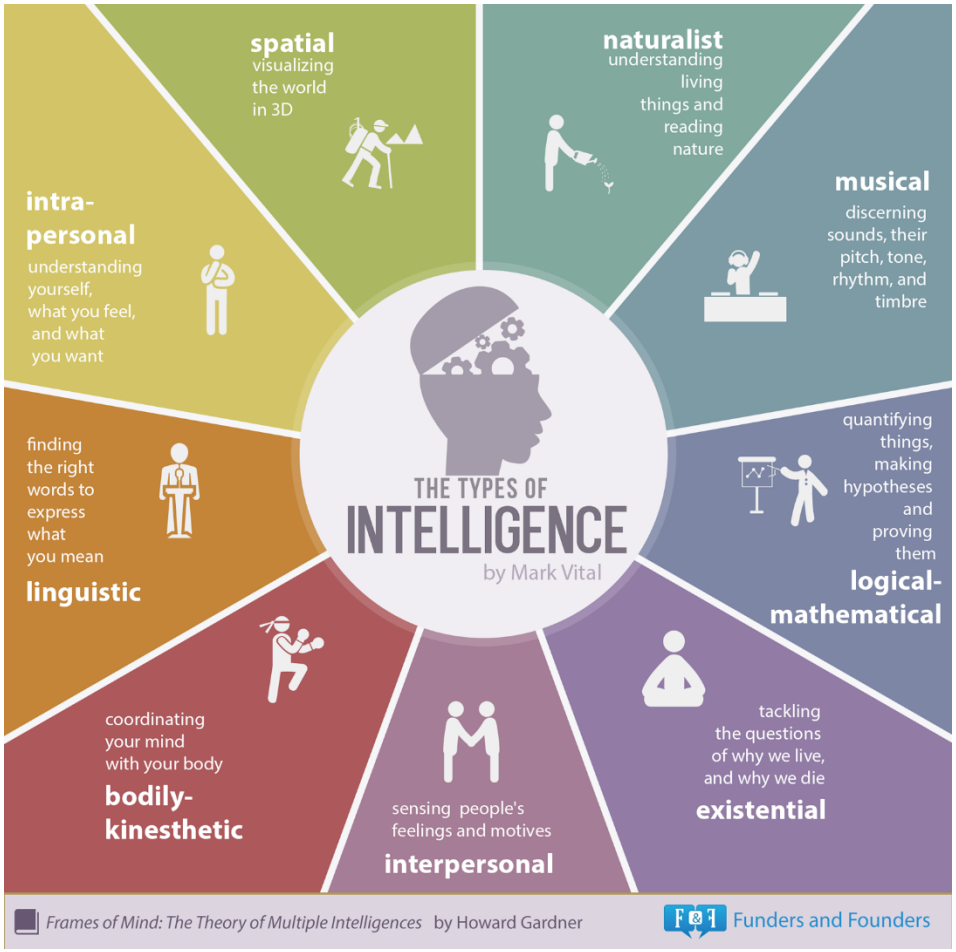
In particular, Gardener identified 9 Types of Intelligence



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1. **Naturalist Intelligence** (Nature smart):

The ability to discriminate among living things (plants, animals) and sensitivity to other features of the natural world (clouds, rocks…)

It is central in such roles as botanist or chef.

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2. **Musical Intelligence** (Musical Smart):

The capacity to discern pitch, rhythm, timbre, and tone. This intelligence enables us to recognize, create, reproduce, and reflect on music.

It appears in composers, conductors, musicians, vocalist, and sensitive listeners.

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3. **Logical-Mathematical Intelligence** (Number/Reasoning Smart):

Logical-mathematical intelligence is the ability to calculate, quantify, consider propositions and hypotheses, and carry out complete mathematical operations. It enables us to perceive relationships and connections and to use abstract, symbolic thought; sequential reasoning skills; and inductive and deductive thinking patterns.

It is usually well developed in mathematicians, scientists, and detectives.

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4. **Existential Intelligence**

Sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life

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5. **Interpersonal Intelligence** (People Smart):

Interpersonal intelligence is the ability to understand and interact effectively with others. It involves effective verbal and nonverbal communication, the ability to note distinctions among others, sensitivity to the moods and temperaments of others, and the ability to entertain multiple perspectives.

Teachers, social workers, actors, and politicians all exhibit interpersonal intelligence.

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6. **Bodily-Kinesthetic Intelligence** (Body Smart)

Bodily kinesthetic intelligence is the capacity to manipulate objects and use a variety of physical skills. This intelligence also involves a sense of timing and the perfection of skills through mind–body union.

Athletes, dancers, surgeons, and craftspeople exhibit well-developed bodily kinesthetic intelligence.

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7. **Linguistic Intelligence** (Word Smart):

Linguistic intelligence is the ability to think in words and to use language to express and appreciate complex meanings. Linguistic intelligence allows us to understand the order and meaning of words and to apply meta-linguistic skills to reflect on our use of language.

It is evident in poets, novelists, journalists, and effective public speakers.

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8. **Intra-personal Intelligence** (Self Smart):

Intra-personal intelligence is the capacity to understand oneself and one's thoughts and feelings, and to use such knowledge in planning and directioning one's life. Intra-personal intelligence involves not only an appreciation of the self, but also of the human condition.

It is evident in psychologists, spiritual leaders, and philosophers.

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9. **Spatial Intelligence** (Picture Smart):

Spatial intelligence is the ability to think in three dimensions. Core capacities include mental imagery, spatial reasoning, image manipulation, graphic and artistic skills, and an active imagination.

Sailors, pilots, sculptors, painters, and architects all exhibit spatial intelligence.

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Learning Area 1 - Meeting Learner‘s Needs:

Learning Styles

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Keywords:

- Styles of learning
- VAK styles
- Metacognitive approach

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The type of intelligence that a person possesses influences his/her learning experience

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Therefore

as different individuals show different types of intelligence, the way people learn also changes from individual to individual

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To know and to recognize people's different learning styles is very important to help them to fully express their ability and to achieve their goals

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Several studies show that students obtain greater achievements when students' learning styles and educators' teaching styles are aligned (Pithers, 2001; Saracho, 2003)

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One of the easiest and most widespread method to assess people's preferred way of learning is through the VAK model.

According to this model, there are 3 main learning styles:

Visual Auditory Kinaesthetic

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Visual

A visual learner thinks through pictures and learns best when supported by visual material, such as diagrams, videos, flip-charts, or body-language

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Auditory

An auditory learner assimilates better the information received through listening. Pitch, emphasis and speed may facilitate his/her interpretation of information

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Kinaesthetic

A kinaesthetic learner learns best through "hands-on" experiences and through interaction with the physical world. Touching, feeling, holding, doing are all activities that facilitate his/her learning experience

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Metacognitive approach

Metacognition means "about learning, awareness of learning".

The metacognitive approach examines how people process different types of information. For each type of information, two opposite ways of processing are described

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Systematic-Intuitive

(dealing with classifying and formulating a hypothesis)

Intuitive people follow their inspiration without hesitation; they like to face new, challenging situations; they finds it difficult to make plans and to follow long logical reasoning.

Systematic people love to plan their activities, to follow them and to complete them. He/she likes to improve the functioning of things

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Verbal-Visual

(dealing with perception and memory)

A verbalizer recalls better spoken words and has difficulties with visual tasks.

A visualizer recalls better objects and images.

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Impulsive-reflective

(dealing with decisional processes)

Impulsive people do not think a lot before answering or acting, they take decisions promptly.

Reflective people think a lot before answering or acting, they need more time to decide.

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Convergent-divergent

(dealing with the way of thinking)

Convergent people tend to converge on logical and consequential conclusions

Divergent people develop autonoumous paths that may produce original or creative solutions

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Learning Area 1 - Meeting Learner‘s Needs:

Experential Learning

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Keywords:

- Experiential learning
- Kolb‘s Learning Style Model

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It is been proven that during a regular lecture, students‘ attention starts to diminsh after only 10 minutes…

Limits of traditional teaching

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Solution

Learning through direct experience

Experiential Learning

"*Learning is the process whereby knowledge is created through the transformation of experience*" (Kolb, 1984)

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Kolb is one of the major theorists of Experiential Learning.

He developed a 4-stage learning model or learning cycle that put experience at the core of the learning process.

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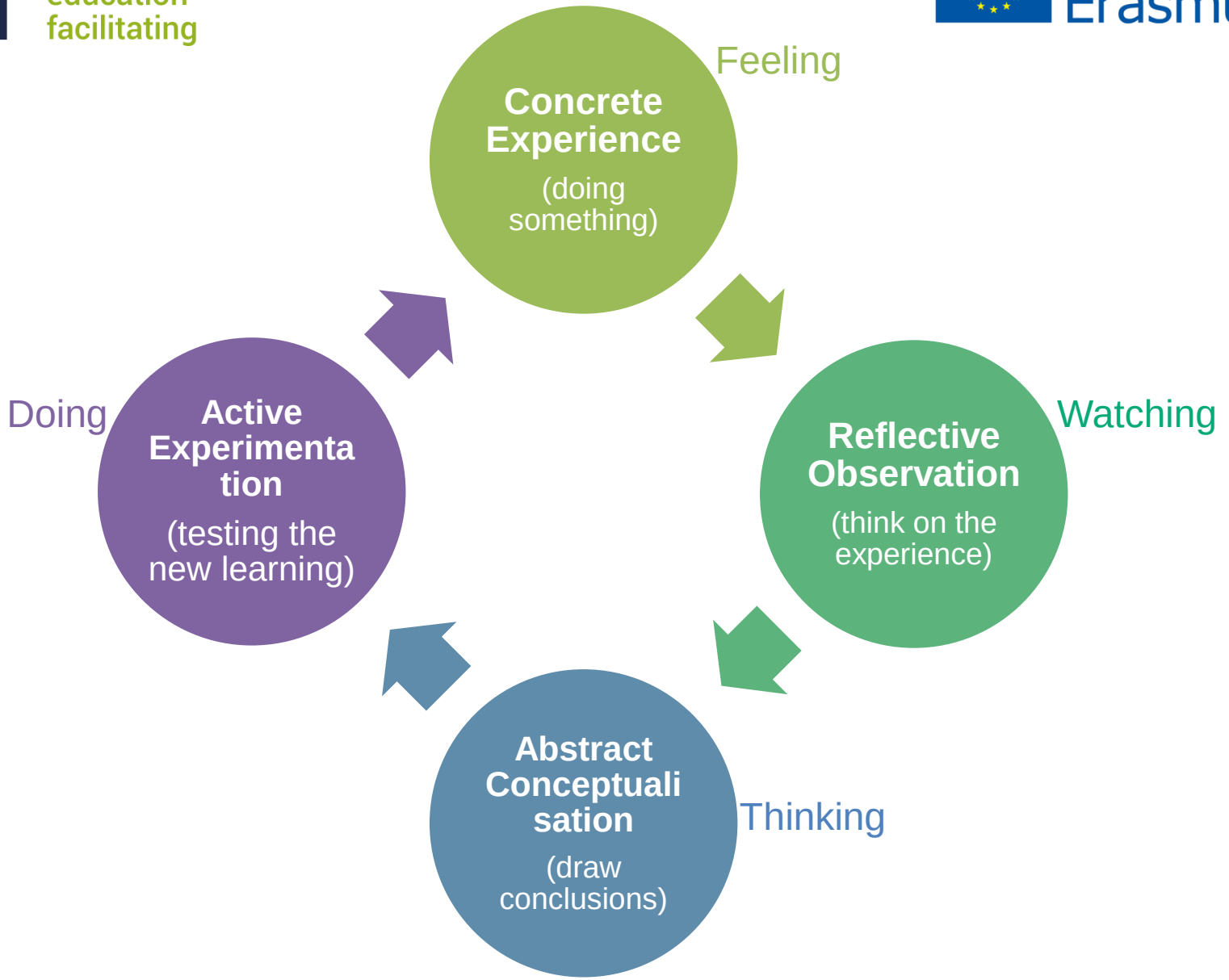

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From this learning cycle, Kolb derived his learning styles theory, identifying 4 different learning styles which correspond to the 4 stages of the learning cycle.

Each learning style reflects people‘s tendency to combine two stages of the learning cycle

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Diverging

Feeling + Watching

- Diverging people prefer to watch rather than do, tending to gather information and use imagination to solve problems.
- They perform better in situations that require ideas-generation, such as quick thinking. They are interested in people.
- They prefer to work in groups, to listen with an open mind and to receive personal feedback.

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Assimilating

Watching + Thinking

- Assimilating people prefer a logical approach. They need clear explanation rather than practical opportunity.
- They are more interested in ideas and abstract concepts than in people. They prefer reading, lectures, and having time to think things through.

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Converging

Doing + Thinking

- People with a converging learning style can solve problems and will use their learning to find solutions to practical issues.
- They prefer technical tasks, and are less concerned with people and interpersonal aspects. They like to experiment with new ideas, to simulate, and to work with practical applications.

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Accomodating

Doing + Feeling

- Accommodating learning style is 'hands-on', and relies on intuition rather than logic. They prefer to take a practical, experiential approach and are attracted to new challenges and experiences
- They tend to act instinctively rather than through logical analysis. They prefer to rely on others for information than carry out their own analysis

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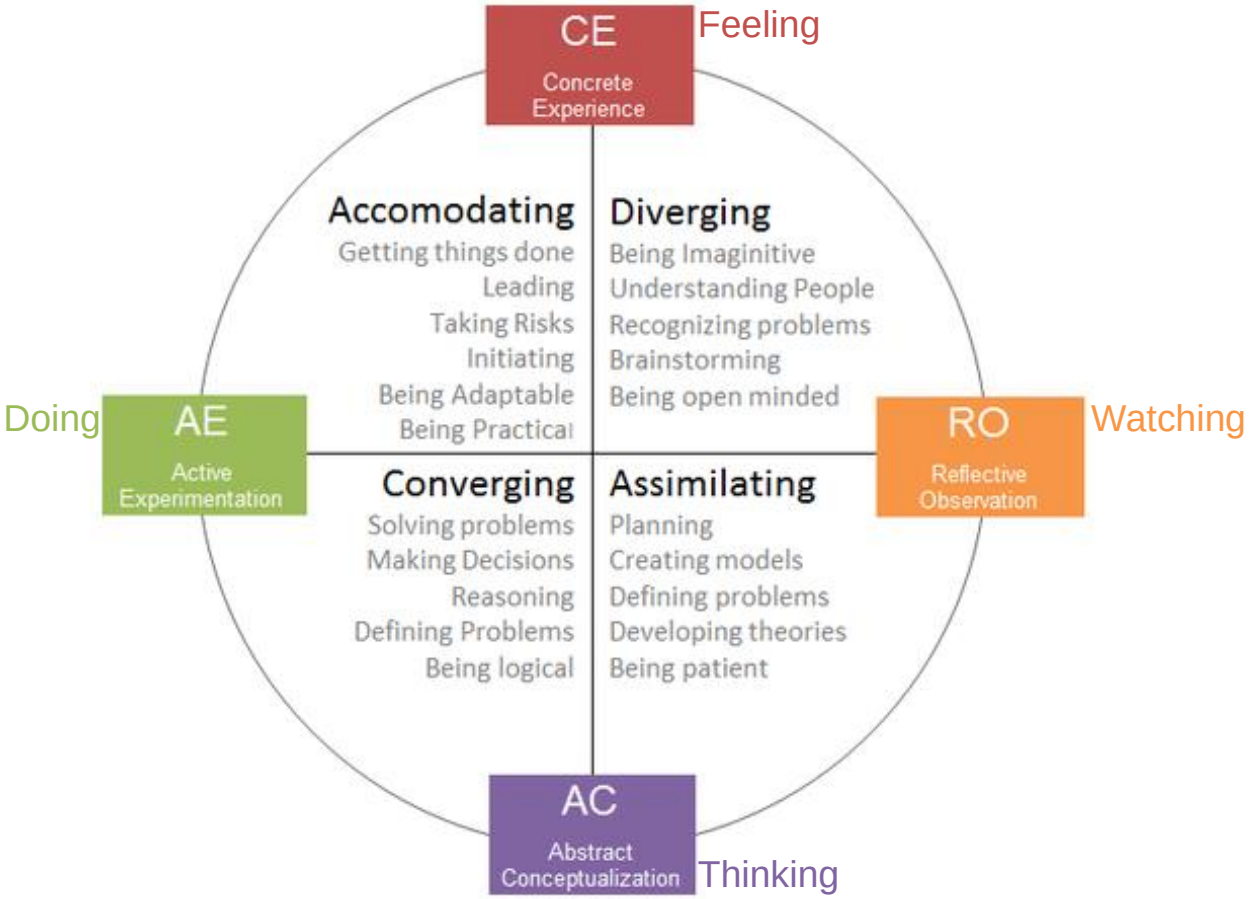

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