

STAGES OF MOTOR LEARNING

1. COGNITIVE STAGE

This stage begins when the learner is first introduced to the motor task. The performer must determine the objective of the skill as well as the relational and environmental cues that control and regulate the movement. The performer is more concerned with what to do than how to do it.

2. ASSOCIATIVE STAGE

The learner is now concerned with performing and refining the skills. The important stimuli have been identified and their meaning is known. Conscious decisions about what to do become more automatic. The performer concentrates more on the task (getting better) The performer seems less rushed.

3. AUTONOMOUS STAGE

This stage is characterized by a nearly automatic kind of performance. An example is when walking occurs automatically without conscious thought.

MOTOR LEARNING CONCEPTS

1. SPEED /ACCURACY TRADE OFF

As we move faster, we move with less precision. If we slow down we gain accuracy. Provide slow-mo, half speed, and three quarter speed practice opportunities.

2. THORNDIKE'S LAW OF EFFECT

Organisms tend to repeat responses that are rewarded and avoid responses that are not rewarded or are punished. Build an environment that permeates rewards and is void of negative experiences

Subjects consistently make corrections in the proper direction only when error information is provided. Simply saying "good job, bad job or right/wrong may be sufficient to act as a reward or provide motivation but it is not sufficient to promote learning. The teacher/coach must communicate what behavior was "good, correct, right" or what behavior was "bad or wrong" along with exactly what corrections should be implemented.

3. INFORMATION FEEDBACK

Information feedback is the human brains only link to the body and the environment. What a person consciously feels / perceives is feedback however there are many other sources of feedback that play a role in controlling movement and learning. Feedback generally serves the role of providing information to performers about the proficiency with which they move.

4. K R Knowledge of results – information received concerning the extent to which the response accomplished the movement goal.
5. K P Knowledge of performance – information received about the actual performance and execution of the movement. “Was the movement performed correctly?”

K R and K P can be both positive and negative at the same time. “Great form in the foul shot but the ball does not go in” K R and K P can arise from both intrinsic and extrinsic sources.

6. INTRINSIC FEEDBACK

This is when internal feedback is normally received during and after the execution of a task. “the performer feels the bat strike the ball and sees where the ball goes”

7. EXTRINSIC FEEDBACK

This occurs when external feedback is received during and after the response from an additional (outside) source. Coaches, teachers, researchers and even special devices are capable of providing additional augmented information to the performer.