Phases of learning motor skills: An overview

It is useful to have some understanding of the field of motor (movement) learning in sports and apply it to developing the skills to play gateball.

Stages of Motor Learning

Motor learning is a change, resulting from practice. It involves improving the accuracy and speed of movements as the environment changes. Motor learning is a relatively permanent skill as the capability to respond appropriately is acquired and retained.

Several stages of motor learning have been identified:

-**Cognitive phase**. This phase occurs when the beginning player is attempting to understand the basic movement task. Challenges include how to hold the stick, how to place the feet, etc. It is challenging for beginners to always aware of what they did wrong, nor is it immediately obvious how to correct errors. Beginners need **basic, specific instruction on routines for stroking, sparking and sliding** and relevant timely feedback.

-**Associative phase**. This is when a player associates the basic movement task with the game environment. The learner has determined an effective routine to stroke, spark and slide and starts to make subtle adjustments according to the game situation. For example, cross court sparks and sparks tight to the line are all stuations where players need to adjust their sparking routine to specific situations. Improvements are more gradual and movements should become more consistent.

In the associative stage, it is important for a player to obtain individual instruction, with errors identified and corrections suggested. Players should be constantly seeking greater accuracy and appropriate length.

Demonstrations, videos of the player performing and verbal descriptions of corrections can be useful. Players in the associative stage should:
  • Reinforce movement patterns first and then add other environmental situations (game-like situations eg stroking across court to take a position in front of a gate. Skill cards are useful at this point).
  • Provide variable practice situations (pages 12 to 18 in Gateball for Beginners describe drills and, importantly, suggested variations)
  • UDevelop knowledge of performance and knowledge of results. Feedback should be sought, but not on every attempt.
  • Practise drills randomly rather than in blocks.
  • Use of mental imagery of action and outcomes.

-**Autonomous phase**. This phase may take several months or years to reach. The phase is dubbed "autonomous" because the performer can now "automatically" complete the task without having to pay over much attention to performing it. It is important to vary the conditions under which the skill is being applied and performed in preparation for competition

In the autonomous stage practice sessions need to be well organised to ensure improvement. The player must be highly motivated and given a great deal of feedback. Training should attempt to simulate the actual performance conditions. Psychological skills training can be very effective in this stage, especially when dealing with anxiety in competitions. Gateball Australia's Gateball Information Pamphlet "gateball for Competition Players should be help ful

The table below summarises these stages

Cognitive	Associative	Autonomous
Characteristics of learner		
• Identifiable steps in a routine are important to follow • Many errors in performance • Learner's attention is given to understanding	• Increasingly consistent performance of the routines for the basic mechanics of the skills • The learner concentrates on the skill • Improved ability to detect	• Performance almost automatic • Highly skilled • Very few errors • Multitasking evident • Able to adjust skills to a game environment

the skill ● Trial and error learning style ● Unable to detect and correct performance errors ●	and correct errors ● Some perception of important cues & information in a game environment	● Greater tactical and strategic awareness ● Highly developed ability to detect and correct errors ● Can adjust concentration form the skil to the wider game contest easily
Considerations for those assisting		
● 'Keep it Simple' Don't overload learner with information ● Verbal instructions should be clear and concise ● Learner benefits from skill demonstrations ● Teach learner how to detect and correct errors ● Skills may be simplifed or broken into smaller skill components.	● Provide opportunity to practise ● Learners continue to work on error detection and correction ● Assist learner to recognise important cues/information in a game environment	● Precise feedback ● Match practice ● Ensure learner motivation is high through varied and engaging practice ● Continue to challenge the learner