

Information processing



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3.2 Skill acquisition and psychology

Decision Making

Limited Channel Capacity

Input

Output

Feedback

Basic information processing

Short-term Memory

Selective attention

Single Channel Hypothesis

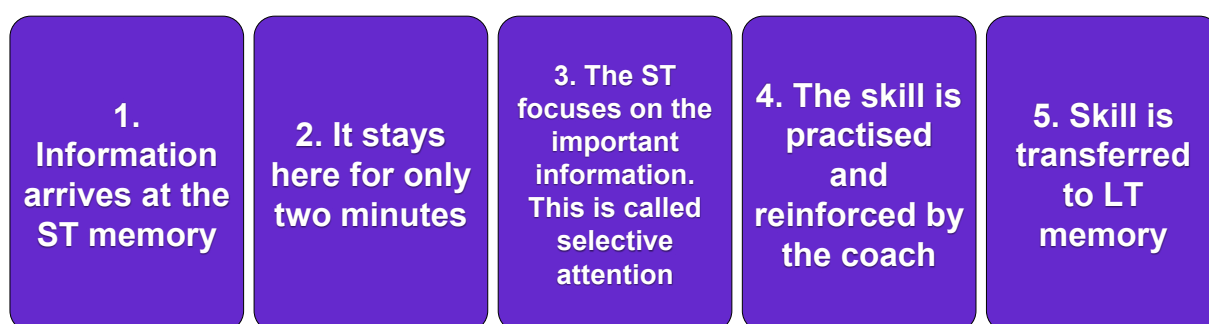
Long-term Memory



Basic Information Processing

1. Information processing

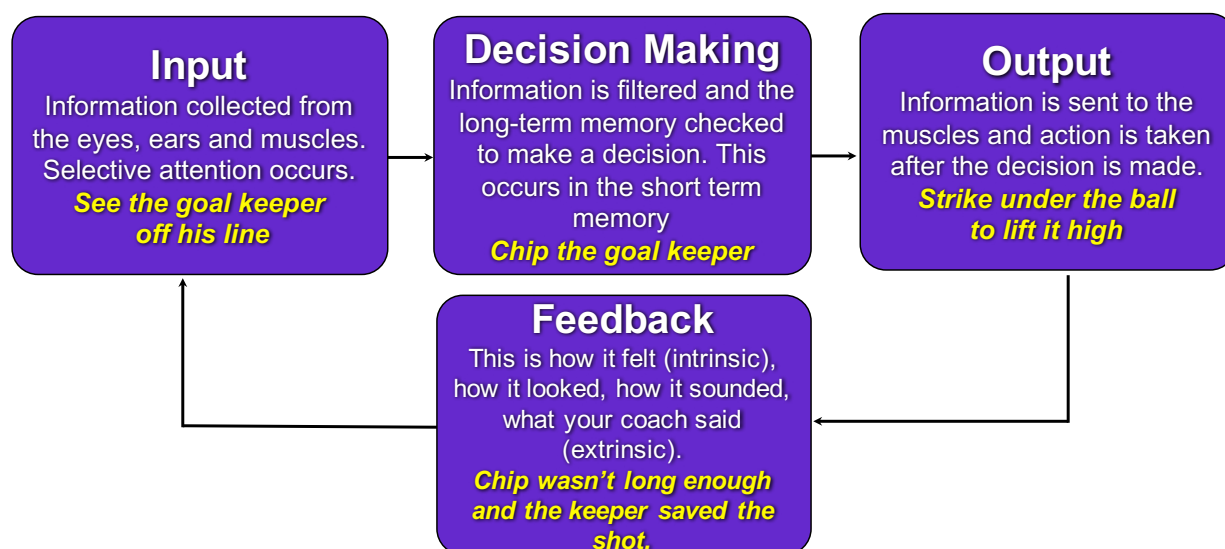
- ▶ The brain is split into the **long-term (LT)**, where information is stored and retrieved when needed and **short-term (ST)**, the working memory where information arrives, is discarded or stored in the LT.
- ▶ They **work together** to learn and repeat skills in the following way.



- ▶ When the brain receives similar information it **scans the long term memory** for the skill movement.

2. Learning

- ▶ **Learning** is done in our **brain**! So it is important to understand how it does this best.
- ▶ The **Information Processing Model** briefly describes how information is **collected**, **filtered** and **acted upon** and then **remembered**.





3. Limited Channel Hypothesis

- ▶ The brain is designed to process a **limited amount** of information at any one time. If we try to do more then performance will suffer.
- ▶ The **Single Channel Hypothesis** states that the brain only has **one channel** for processing information and if needed must switch between tasks.
- ▶ **Selective attention** makes sense of the information only passing along useful information.

