Skill, Target Setting, Feedback, Guidance and Information Processing

Classification of Skills

Ability:
Abilities are inherited from your parents, abilities are stable traits that determine an individuals potential to learn or acquire skills.

Skill:
Skills are learned and when mastered are consistently done in a way that looks easy, uses minimum time and energy as well as the correct technique.

Goal Setting:
Helps motivate performers and gives them a target to aspire to which helps them prepare both physically and mentally.

Performance Goals
- Personal standards to be achieved.
- The perform compares their performance against what they have already done or suggests what they are going to do. E.g. 100m runner hopes for a better start.
- They DO NOT compare themselves to other performers.

Outcome Goals
- Focus on end result. E.g 100m runner aims to win the race.
- They usually involve comparison with other competitors.
- The performers standards may not be seen as important, it is the final outcome that matters.

Setting Goals:

S = Specific
- Using a specific target will mean they focus on area for improvement/weakness/relevant aim **(1)** therefore improvement is more likely leading to motivation **(1)**

M = Measurable
- By setting a measureable goal they can see progress / monitor progress **(1)** knowing their training is working/ improving will motivate them to continue with it. **(1)**

A = Accepted
- The target must be accepted / agreed by the performer and the performers coach if they have one.

R = Realistic
- Ensuring target is achievable/realistic so they know they can complete it/they have access to facilities/time (1) which motivates them to continue to train/work hard **(1)**

T = Time Bound
- Make time bound/time based so there is a definite point when the target must be achieved **(1)** therefore makes them motivated to work hard to achieve within time frame/keeps training interesting/ challenging as won't get bored with same target as set new target once completed/ won't put off training **(1)**

Basic and Complex Skills

Basic
- Very little decision making is required
- Few decision affect the success of the movement
- Are learnt fairly quickly

Complex
- A lot of decision making is required
- Take considerable time to master
- Tend to be taught after basic skills are done correctly

Gross and Fine Skills

Basic
- Involves big movements using large muscle groups.
- Movements tend not to rely of accuracy and precision.

Gross
- Involves small, precise movements that use small muscle groups.
- Movements tend to involve precision and accuracy.

Use of Performance Goals
- Beginners are better concentrating on performance goals as they do not need to worry about comparing the result to others.
- Elite performers use performance goals to help motivate themselves to work on individual aspects of their performance.

Outcome Goals
- Beginners prefer to avoid outcome goals as failure demotivates them and winning may be unrealistic.
- Elite performers are sometimes driven by outcome goals as they always have the desire to win.

Open and Closed Skills

Open
- The environment is constantly changing and people around you affect the skill.
- This type of skills is often externally paced as the changing environment controls what skill is performed and when.

Closed
- Stable environment, meaning the environment does not change.
- The way the skill is performed is not affected by people around you.
- The skill will not change and is done the same way every time.
- Often self paced as performed controls when skill starts.

Feedback
Intrinsic – feedback from within e.g. kinaesthetic feel (how a shot / skill feels like to the performer themselves). Elite performers use this type of feedback as they have developed the ability to 'feel' if a skill is being performed right or not.

Extrinsic – feedback from an external source e.g. from a coach or teacher. Beginners often struggle to understand the success of their movement (intrinsic) so they rely heavy on feedback from others (extrinsic).

Positive – is used to inform a performer what was correct about their movement / performance. Positive feedback is essential to motivate athletes / performers.
Negative – is used to inform the performer what is incorrect about their movement / performance. Negative feedback must include information that helps the performer develop and improve (what they need to do to get better).

Knowledge of results (KR) – Feedback about the outcome (factual e.g. you won etc). Basically in informs the performer on how successful they have been in achieving what they set out to do.
Knowledge of performance – Feedback about the quality of performance e.g. technique. It provides the performer feedback about how well they did irrespective of the result. It deals with the quality of performance and not the end result.

BEGINNERS tend to need positive feedback, knowledge of results and extrinsic feedback.

ELITE performers tend to accept negative feedback, knowledge of performance and can provide themselves with informed intrinsic feedback.

Self Paced and Externally Paced Skills

Self Paced
- The start of the movement is controlled by the performer.
- The speed, pace or rate of the movement is controlled by the performer.

Externally Paced
- The start of the movement is controlled by external factors.
- The speed, pace or rate of the movement is controlled by external factors.

Guidance

Visual
- Is when the performer can see something e.g. demonstration by coach, skill performed by another player, DVD footage.

Verbal
- Is when the perform is spoken to by another person. E.g. teacher or coach.
- It is commonly used with visual guidance

Manual
- The performer is physically moved by another person e.g. coach

Mechanical
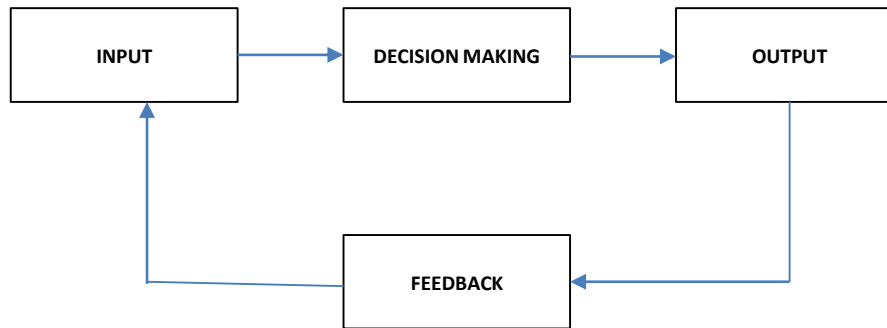- The use of mechanical aids to assist a performer e.g. swimming floats.

Guidance for Beginners
- Visual guidance is very important so that they can see and start to understand what the skill looks like and what they are meant to do.
- Verbal guidance needs to be used with visual guidance and verbal on its own is not enough for beginners to understand how a skill should be performed.
- Demonstrations to beginners must be clear, quick, easy to understand and backed up with verbal guidance.
- Manuel / Mechanical guidance can be used by beginners to support or guide them through the correct technique.

Guidance for Elite Performers
- Visual guidance is not used as much by elite performers, however it can be used to highlight minor errors in technique via analysis software which can slow movements down.
- Verbal guidance is needed by elite performers and is often longer and more complex than that given to beginners. Visual guidance is not needed with this as elite performers should know what the skill is meant to look like.
- Manuel / mechanical guidance is not usually used by elite performers unless unexpected flaws in technique start to occur.

Information Processing

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│    INPUT    │───────▶│  DECISION MAKING │───────▶│   OUTPUT    │
└─────────────┘        └──────────────────┘        └─────────────┘
       ▲                                                   │
       │                ┌──────────────┐                   │
       └────────────────│   FEEDBACK   │◀──────────────────┘
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STAGE 1 = Input Stage
- Performer takes in information from the environment e.g. what they can see, hear or feel.
- They must choose what is the most relevant signal / cue / stimulus / piece of information e.g. the shuttle in badminton.
- They must use selective attention within the input stage. This is blocking out any irrelevant information / cues, e.g. noise / other visual stimuli.

STAGE 2 = Decision Making Stage
- This is where the performer selects an appropriate response (movement / skill) from memory, perhaps one they have used in this situation before.
- The short term memory (STM) is the 'working memory'. Information from the environment is held here for a short time (approx. 30 sec). If your attention is directed to something else, the information is lost.
- The long term memory (LTM) holds information that has been rehearsed and stored. From LTM the performer must select an appropriate response i.e. have you dealt with this before / have you seen this a similar type of shot before.

STAGE 3 = Output Stage
- The decision chosen is sent to the appropriate muscles to carry out the response.
EXAM TIP – marks are often given for naming the appropriate muscles used during the action being discussed e.g. bicep / hamstrings etc.

STAGE 4 = Feedback Stage
- Information is received via themselves (intrinsic) and / or others (extrinsic) with regards the success (or not) of the action.
- If the feedback is positive and the action was successful the information is stored in long term memory so that it can be used again if a similar situation arises.
- If the action was not successful the performer will think about what they did wrong and try and correct if for the next time that situation occurs.