

CHAPTER 5: Skill, skill continuums, transfer & types of practice

Practice questions - text book pages 75 - 76

- 1) Tackling in football would be best classified as which type of motor skill?
- closed skill.
 - fine skill.
 - continuous skill.
 - open skill.

Answer: d.

Explanation:

- Note that this question is asking for the best option and so the best answer is d. since the football tackle has no clear beginning or end, is affected by the environment and is externally paced.

- 2) Skills involving large muscle group and less precise movements are best classified as which type of skill?
- gross skills.
 - open skills.
 - fine skills.
 - continuous skills.

Answer: a.

Explanation:

- Note that this question is asking for the best option and so the best answer is a. since gross skills are those that use large muscle movements such as weight lifting.

- 3) When should teachers introduce whole method of learning for students?
- when the skill is high in complexity and low in organisation.
 - when the skill is low in complexity and high in organisation.
 - when the skill is low in complexity and low in organisation.
 - never.

Answer: c.

Explanation:

- The whole method of learning involves teaching a skill in its entirety without breaking it down into parts and so is best suited to choice c.

- 4) Massed practice is the most appropriate practice method to use when:
- the learner needs to practice the same task in a number of different ways.
 - the learner practices a set task without any change.
 - the learner's motivation is low.
 - the task is simple and can be fully learned in one session.

Answer: d.

Explanation:

- Massed practice occurs when a learner practices continually for long spells and so is best suited for answer d. Choices a, b, and c, are best suited using distributed practice – i.e. for short regular periods of time.

- 5) Which of these schedules of practice sessions represents the most distributed practice session?
- 2 x 4-hour a week for 2 weeks.
 - 4 x 2-hour a week for 2 weeks.
 - 2 x 2-hour a week for 4 weeks.
 - 2 x 1-hour a week for 8 weeks.

Answer: d.

Explanation:

- The best choice is d. since distributed practice sessions should be short and spread over time with recovery periods between. In the other choices the practice sessions are too long and spread over a short period of time.

- 6) Due to the different wrist action involved in tennis and badminton, a person who has learned the forehand in tennis before learning the forehand in badminton often experiences what kind of transfer?
- positive transfer.
 - negative transfer.
 - zero transfer.
 - bilateral transfer.

Answer: b.

Explanation:

- *The answer is b. because the person has learned the forehand in tennis, the new task of learning the forehand in badminton is interfered with by the knowledge of a similar skill. In other words, the flexible use of the wrist needed for badminton may interfere with the firm wrist needed for tennis.*

- 7) If you were watching a number of performers in sport, what characteristics would you expect the movements of a skilled performer to have?

4 marks

Answer:

- *Movement seems effortless.*
- *There are many correct movements consistently performed.*
- *The movement follows a technical model.*
- *The movement is aesthetically pleasing.*
- *The movement is controlled and well coordinated.*

- 8) a) Why is the shot put often regarded as a closed skill?

2 marks

Answer:

- *Tends to be an habitual response.*
- *Little reference to the environment.*
- *There is a definite **beginning** and **end**.*
- *More self-paced than externally-paced.*

- b) Using passing skills in a team game, explain what is meant by an open skill.

4 marks

Answer:

- *When passing a soccer ball you need to take into account any challenge from your opponents.*
- *You need to refer to where your team mate is when passing a netball.*
- *You need to process a great deal of information regarding speed of passing the ball in hockey and the direction of the pass.*
- *When passing the ball in rugby the speed at which you pass is often dictated by how quickly you are being closed-down.*

- c) Give one example from sport of each of the following and state why you have chosen your example: continuous skills, serial skills, discrete skills.

3 marks

Answer:

- ***Continuous skill:** cycling - because the subroutines of the pedalling action are not easily separated.*
- ***Serial skill:** triple jump - because there are a number of discrete elements linked together to make up the whole skill.*
- ***Discrete skill:** forward roll - because there is a definite beginning and a definite end to the skill.*

- 9) a) Choose two specific skills from an individual and a game activity and explain why you might use whole or part practice.

4 marks

Answer:

- Factors affecting the choice of method are dependent on the **type, classification and complexity** of the skill and the **ability level** of the performer.
- In the **whole method** the skill is **practised in total**.
- Discrete skills **cannot** be broken down into parts.
- For example, a somersault which requires rapid movement sequences.
- The **part method** is often used when skills are very **complex, but low in organisation**.
- And so lend themselves to being practised as **independent** subroutines.
- For example, soccer players can practise the skill of passing and the skill of shooting at goal, before linking these two subroutines together.

- b) Identify an advantage and disadvantage for whole and part methods of learning.

4 marks

Answer:

One mark for one advantage and one mark for one disadvantage from the following possible answers:

Advantages of whole method

- Wastes no **time** in assembling parts.
- Useful for quick **discrete skills** where a **single complete action** is required.
- The movement retains feeling of **flow/kinaesthetic** sense.
- Movement can be more easily understood/**relationship** between subroutines and so helps to create a more **consistent, habitual** skill.
- Learner can develop their own motor programmes through **trial and error** learning.
- **Transfer to real situations** from practice is more likely to be positive.

Disadvantages of the whole method.

- Ineffective with **complex** tasks.
- Not appropriate with an element of **danger**.
- Not always appropriate if group/performer has **basic experience**.

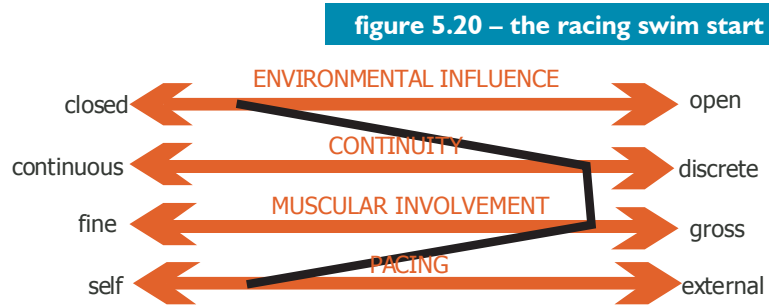
Advantages of part method

- Allows **serial tasks** to be broken down and learned in subroutines. For example, the complex elements of a gymnastics floor routine.
- **Reduces the demand** on the learner when attempting **complex** skills.
- Allows **confidence** and understanding to grow when building up more **complex** skills.
- Helps to provide **motivation** to continue if progress can be seen to be made.
- Helps to **reduce potential injury and fatigue** in more complex skills.
- Allows the coach to correct on **faults** and weaknesses.
- Recommended for **low organisational** tasks which can easily be broken down.

Disadvantages of the part method.

- **Transfer** from part to whole may be ineffective.
- **Highly organised** skills are very difficult to break down.
- Difficult to create **kinaesthetic** feel/sense of skill.
- Can be **demotivating** for performer.
- Can be **time consuming**.

- 10) The diagram in figure 5.20 shows a profile for the racing start in swimming scaled across four different continuums representing the skill characteristics of the movement.

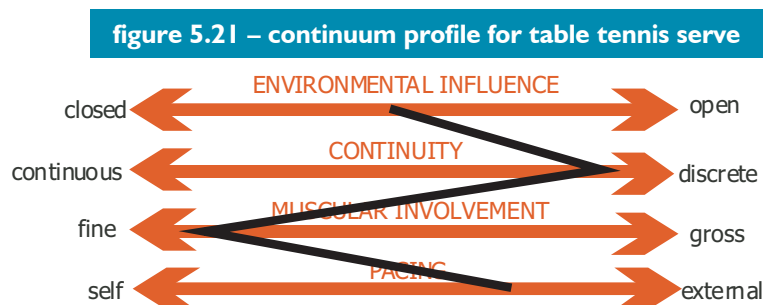


- a) Referring to the profile, describe the swim racing start in terms of each of the four characteristics shown. 4 marks

Answer:

- **Continuity:** the start is shown as being discrete, it has a distinct beginning and end.
- **Muscular involvement:** the start is shown as having gross muscle actions using large muscle groups violently with little fine control.
- **Pacing:** the start is shown as being externally paced, the swimmer has to react to the external stimulus of the gun or hooter.
- **Environmental conditions:** the start is shown as a closed skill, although the swimmer reacts to an external signal, no interpretation of that stimulus is required, and only the one response (movement from the start box) is relevant.

- b) Using this same profile chart, sketch a profile which would describe the characteristics of a table tennis serve. 3 marks



Answer:

- See figure 5.21

- c) Explain why you have chosen your particular characteristic for muscular involvement and environmental conditions. 4 marks

Answer:

Muscular involvement:

- The table tennis serve is a very delicate movement requiring very **fine control** of the small muscles in the hands and forearms.

Environmental conditions:

- The serve is a fairly **closed skill**, then player uses a well-learned technique.
- However, a player must be able to use more than one movement pattern in order to be able to respond to the opponent variation in positioning, and his or her strength at returning different types of serve, and hence choose appropriately.
- And to vary the spin and direction of the ball.
- So, each variation of serve will be a closed skill and be part of a well-learned repertoire of serves.

- 10) d) Explain how your profile for the table tennis serve might assist a coach in planning practices for players learning this skill. 5 marks

Answer:

- The coach should look at the position of the skill in each continuum to see if it will tell him or her something about how to organise the practices.

Continuity:

- Because the skill is **discrete**, it can be practised in isolation from other aspects of the game.
- It should be practised sufficiently to enable accuracy and consistency to develop.

Pacing:

- Because the skill is **internally paced**, the coach should encourage beginners to take their own time in executing the skill.
- And to adopt a set routine or mental set for the technique.

Environmental influence:

- Although the serve is relatively '**closed**', it can be affected by temperature of the playing hall, and pressure of the event.
- Which means that the player should be exposed to practice in this **variety of environmental conditions** in order to be best prepared for him or her in the competitive situation.

- 11) a) What is mental practice? 1 mark

Answer:

- Mental practice is the cognitive (**thinking**) rehearsal of a physical skill without movement.

- b) Mental practice is often used by sport's performers when preparing for competitions? Suggest reasons why this is the case. 3 marks

Answer:

- Mental practice (also known as **imaging**) provides a **mental picture** of the skill.
- And so can be an effective tool during a warm-up that would create a **state of readiness** prior to the competition.
- By **focusing on important elements** of the skill.
- This mental process builds up **self-confidence**, particularly in closed skills such as javelin throwing.
- And helps to **control arousal** levels to prepare the sport's performer for the competition.

12) a) Explain the difference between massed and distributed practice.

2 marks

Answer:

- **Massed** - no rest intervals hence practice conditions of long duration.
- **Distributed** - rest intervals at regular periods of time during a session.

b) Justify the choice of practice conditions for a training session of a sport of your choice.

6 marks

Answer:

Massed:

- To ensure motor programmes are learned (overlearning).
- To encourage an **habitual** response.
- To cut down on response or reaction time.
- Good for learning discrete skills.
- Good for skills performed over a short duration, for example, basketball shots.
- But can lead to fatigue, boredom or demotivation.

Distributed:

- To give physical rest or recuperation.
- To give mental rest or gather thoughts.
- To relieve stress.
- Provides safety for dangerous activities.

c) Name two characteristics of the task, and two attributes of the learner which might lead you to decide which method (massed or distributed) of practice to use.

4 marks

Answer:

Two characteristics of the task from the following:

- Whether the skill was **complex** and lengthy or short and discrete (**discrete** means in clearly defined parts).
- Whether the task required great fitness levels.
- Whether the task was dangerous or not.

Two attributes from the learner:

- The **motivation** levels of the learner.
- The **personality** of the learner (whether or not he or she would be prepared to persist in the learning task).

Make sure you use the above answer in relation to a sport or game of your choice.

13) Generally a skill should be taught as a whole as far as possible. Give reasons for this.

Some skills need to be split up into parts to be taught effectively. What are the advantages and disadvantages of this type of skill presentation?

8 marks

Answer:

Teaching skill as a whole:

- The performer can appreciate skill in its entirety.
- Has overall kinaesthetic sense of the skill.
- The flow of the skill is not interfered with.
- Much more efficient in skill learning and is therefore quicker to learn.
- Can help understanding and hence the cognitive development of the performer.

Splitting into parts:

Advantages:

- Useful if skill is dangerous and will lower fear level.
- Good for complex or difficult skills.
- Good for serial skills.
- Gives success at each stage and less likely to fail overall skill.
- Helps confidence and motivation.

Disadvantages:

- Transfer of movements from the part skill to the whole may not work.
- Some skills cannot be split up into subroutines very easily.
- Loses the overall kinaesthetic sense.
- Loses the flow of the skill.
- Takes up too much time.

14) Explain four different types of transfer of learning.

4 marks

Answer:

4 marks for 4 of:

- **Positive transfer** is one skill helping the learning or performance of another.
- **Negative transfer** is one skill hindering the learning or performance of another skill.
- **Bi-lateral transfer** is the transfer of learning or performance from limb to limb.
- **Retroactive transfer** is the influence of a skill being learned on a previously learned skill.
- **Proactive transfer** is the influence of a skill being learned on future skills, a skill learned in the past has an influence on a present skill.

15) a) Using a practical example, explain what is meant by the term 'transfer' in skill learning.
How can transfer be detrimental to performance? Give a practical example.

5 marks

Answer:

Transfer in skill learning:

- The influence of the learning or performance of one skill on the learning or performance of another skill.
- If you perform one skill and then perform another, the second may well be affected by the first.
- For example, you perform a push pass in hockey and then you perform a flick, the actions of the first skill may help that of the second (positive transfer).

Detrimental to performance:

- The performance of one skill may well hinder the performance of another.
- Because there may well be inappropriate movements or information processing which could confuse the performer.
- For example, a badminton player may play tennis immediately after playing badminton and the forehand in tennis may be far too 'wristy' because of the confusion in the response.

b) How can a teacher or a coach ensure that as much positive transfer takes place as possible in a training session?

Answer:

5 marks

5 marks for 5 of:

- The coach uses as many **different practices** as possible in training – drills are varied.
- Emphasise the **transferable elements** of the skills.
- Tell performers about transfer to heighten awareness.
- To ensure the building of schema.
- Make sure training is relevant to the 'real' game.
- Environmental conditions need to be similar.
- Tactics, strategies and information processing elements need to be similar.
- **Avoid confusing practices** to avoid negative transfer.
- Ensure that skills are **thoroughly learned** before moving on to other skills.
- Give **distributed practice sessions** in which there are rest intervals for mental assimilation.
- Positive previous experiences or values assist transfer.