



## Higher National Unit specification

### General information for centres

**Unit title:** Skill Acquisition in Sport and Exercise

**Unit code:** F5DL 34

**Unit purpose:** This Unit has been designed to give candidates a knowledge and understanding of skill acquisition principles to improve sports motor skills. It looks at the types and design of skills practice sessions and candidates will apply this knowledge in the design and delivery of a sports skill practice session.

On completion of the Unit the candidate should be able to:

- 1 Explain the principles of sports motor skill learning.
- 2 Explain factors which determine the selection of practice sessions for optimal development of sports motor skills.
- 3 Plan, deliver and evaluate a sports skill practice session.

**Credit points and level:** 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7\*)

*\*SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

**Recommended prior knowledge and skills:** Access to this Unit is at the discretion of the centre. However, it would be important for candidates to have some experience of sports participation and associated skills development in order to provide a basis on which to develop a skill enhancement focus. This could be evidenced by recent participation at a recreational level in any sport.

**Core Skills:** There are opportunities to develop the Core Skills of *Communication, Problem Solving, Working with Others* and *Information Technology*, all at SCQF level 6 although there is no automatic certification of Core Skills or Core Skills components.

## General information for centres (cont)

**Context for delivery:** If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

**Assessment:** Outcome 1 and 2 could be assessed individually using extended response questions. Alternatively the assessments for Outcomes 1 and 2 could be integrated into a single assessment in the form of an assignment requiring extended responses to set questions. If evidence is produced in the form of an assignment, it is recommended that sufficient time is allowed between the setting of the assessment task and the submission date to allow candidates to carry out the necessary research and produce the evidence.

Outcome 3 will be assessed separately as this is a practical assessment involving the planning, delivery and evaluation of a sports skill practice session. Performance evidence for this assessment may be recorded on a checklist. Candidates could choose sports in which they have a personal interest around which to base their assessment. This would allow for individuals to showcase personal experience of, or involvement in, athlete development.

All assessments are open-book and completed under unsupervised conditions, with the exception of the practical skill task for Outcome 3 which requires authentication by a tutor/assessor.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Skill Acquisition in Sport and Exercise

### Outcome 1

Explain the principles of sports motor skill learning

#### Knowledge and/or Skills

- ◆ Human motor skill classification systems
- ◆ Hierarchical motor skill learning principles
- ◆ Open and closed loop motor programming control
- ◆ Decision making process
- ◆ Stages of learning

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ explain the hierarchical organisation of motor skill learning principles in relation to executive skills, subroutines and new skills
- ◆ explain the following human motor skills classification systems:
  - continuous and discrete continuum
  - pacing continuum
  - open and closed continuum (environmental)
- ◆ explain giving a sporting illustration of each, the differences between open loop and closed loop motor programming control
- ◆ explain, using an example of the development of one sports skill, the type of skills performance you would expect of a performer at the following stages of learning:
  - cognitive phase
  - associative phase
  - autonomous phase
- ◆ using a sports skill you are familiar with, explain the function of the following in the decision making process:
  - reaction time
  - response time
  - movement time

This is an open-book assessment.

#### Assessment Guidelines

This Outcome could be assessed by restricted response questions. Alternatively, the assessments for Outcomes 1 and 2 could be integrated into a single assessment details of which are given under the Assessment Guidelines for Outcome 2.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Skill Acquisition in Sport and Exercise

### Outcome 2

Explain factors which determine the selection of practice sessions for optimal development of sports motor skills

#### Knowledge and/or Skills

- ◆ Skills practice methods
- ◆ Guidance techniques
- ◆ Skills practice scheduling
- ◆ Feedback

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ explain how the complexity of the motor skill will determine the selection of whole, part and whole, or whole-part-whole methods of skill practice, providing an example of a sporting skill best suited for each practice method.
- ◆ explain, using sporting examples, how the following guidance techniques could aid sport motor skill development:
  - visual (demonstration, visual aids, target court markings)
  - verbal
  - manual/mechanical
- ◆ explain which type of sport motor skills are best suited to the following practice scheduling:
  - variable practice
  - fixed practice
- ◆ explain which type of practice session favours highly skilled, well motivated performers.
- ◆ explain the advantages of distributed (spaced) practice scheduling has if mental rehearsal is employed in the rest intervals.
- ◆ explain how feedback may motivate performers, reinforce learning of a skill and thus bring about a change in performance. Reference should be made to three different types of feedback from supplementary (augmented), external, intrinsic, internal, terminal, delayed, concurrent, immediate, knowledge of results, knowledge of performance.

This is an open-book assessment.

#### Assessment Guidelines

This Outcome could be assessed by restricted response questions. Alternatively, the assessments for Outcomes 1 and 2 could be integrated into a single assessment in the form of an assignment requiring set extended responses.

If evidence is produced in the form of an assignment, it is recommended that sufficient time is allowed between the setting of the assessment task and the submission date to allow candidates to carry out the necessary research and produce the evidence. Candidates could choose sports in which they have a personal interest around which to base their assessment. This would allow for individuals to showcase personal experience of, or involvement in, athlete development.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Skill Acquisition in Sport and Exercise

### Outcome 3

Plan, deliver and evaluate a sports skill practice session

#### Knowledge and/or Skills

- ◆ Session planning principles
- ◆ Practice type selection
- ◆ Style of communication
- ◆ Feedback — technical and motivational
- ◆ Organisation and management skills

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ prepare a plan for a practice session (maximum 40 minute) to coach a sports skill to at least one performer using the whole-part-whole method of practice. They should conform to session planning principles in relation to class organisation, health and safety, performer group, skill classification, practice type and style of communication.
- ◆ deliver the organised sports skill practice session to at least one performer which allows for maximum, quality practice time.
- ◆ provide technical and motivational feedback to assist performer(s) to enhance performance and adhere to practice elements.
- ◆ review and evaluate the sports skill practice session and produce three action points for the performer(s) for the next session.
- ◆ obtain feedback from the performer(s) after the session.

A planning document for a practical session with an evaluation and action points section and the delivery and evaluation of a practical session are required elements. Evidence for the practical performance must be recorded on a candidate checklist.

The candidate checklist used to record candidate evidence should record the following:

- ◆ session content and delivery enables performer to build movement patterns to develop more complex skills
- ◆ verbal introductions/conclusions
- ◆ appropriate communication style for performer
- ◆ fault analysis and correction
- ◆ task organisation, positioning and management
- ◆ maximising practice time for performer
- ◆ appropriate use and timing of feedback
- ◆ self evaluation of strengths and weaknesses of programme to be completed prior to receiving external assessor feedback
- ◆ action planning to carry into next session

Supplementary questions can be asked to support practical application with responses recorded on candidate checklist.

## **Higher National Unit specification: statement of standards (cont)**

**Unit title:** Skill Acquisition in Sport and Exercise

### **Assessment Guidelines**

Outcome 3 is assessed separately as this is a practical assessment involving the planning, delivery and evaluation of a sport skills practice session. It is important to note that during the practical session it may not be possible to see any immediate improvement by the performer because the skill may require longer periods of practice. What is important is that the session leader can demonstrate competent organisation and delivery of the chosen practice session for the chosen skill and the session is aimed at the ability level of the performer.

A video submission would be acceptable, supported by a witness testimony.

Centres that make use of video evidence must ensure that all involved have given consent to this taking place in line with current policy and guidelines. Centres should also be aware that for the video to be useful, it must be possible to see and hear the candidate and to see and hear the response of the client(s) in order to judge if the verbal and non verbal communication was relevant and effective.

## Administrative Information

**Unit code:** F5DL 34  
**Unit title:** Skill Acquisition in Sport and Exercise  
**Superclass category:** MA  
**Original date of publication:** August 2008  
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### History of changes:

Version	Description of change	Date

**Source:** SQA

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## **Higher National Unit specification: support notes**

### **Unit title: Skill Acquisition in Sport and Exercise**

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

### **Guidance on the content and context for this Unit**

This Unit is designed for candidates interested in improving sports performance — possibly sports coaches and applied sport and exercise scientists. It may be useful if candidates had some familiarity with basic sports coaching methodology, session delivery and involvement as a performer in sports skill practices from which to draw upon.

Candidates will be introduced to the principles of motor learning, classification of skill and subsequent practice arrangements and the planning and delivery of a sports skill practice session. The Unit should be regarded in the broader context of the process of training to improve sports performance for athletes in different sports. It provides excellent underpinning knowledge of strategies and principles to employ for sport skills enhancement.

#### **Outcome 1**

The candidate, through research opportunities, could come to appreciate that there are different definitions of skill. Skill is learned. It requires practice and results from experience. Skill has end objectives, is goal directed and results in economies and efficiency of movement. Skilled performers can vary the timing of movement according to the demands of the moment. A skilful performer makes accurate analyses of the demands of a sports situation.

Decision making involves — reaction, response and movement time. The affect of anticipation (effector and receptor) on performance should also be discussed and could be demonstrated using simple practical drills to enhance understanding.

#### **Outcome 2**

Motor programming and the hierarchical structure of sports skills, with executive programmes and subroutines forever interchanging, could be discussed in groups and findings presented back to the class. Hierarchical motor skill learning principles may be best understood by reflecting back on early childhood and the potential for motor skills at given ages.

Motor control and ‘automatic’ movements could be discussed using electronic images of sporting examples. Examples of skills which are open loop (subconscious and no attention requirement) and closed loop (subconscious, smooth continuous control and attention and error detection ongoing) would be useful.

Candidates should be encouraged to try different sports skills to determine the contribution of the actions to the different classification methods — continuous/discreet, pacing or open/closed continuum which is sometimes referred to as the ‘environmental’ continuum.

Skill involves stages of learning — cognitive, associative and autonomous.



## Higher National Unit specification: support notes (cont)

### Unit title: Skill Acquisition in Sport and Exercise

Classifications methods of skill vary considerably so candidates should be encouraged to read widely. Three well respected classifications are:

#### **Continuous/discreet continuum**

Continuous — no beginning or end (running cycle).

Discrete — a beginning and an end (tennis serve).

Serial — high jump — several discrete elements stitched together to form a performance.

#### **Pacing continuum**

Performer has an element of control over the timing of an action.

Self paced — performer controls the speed of action (amplitude of the movement).

Externally paced — reliant upon environmental conditions — reacting to this (sailing).

#### **Open closed continuum (environmental continuum)**

Open — action constantly vary according to what happens around the performer.

Closed — pre-learned pattern of movements irrespective of conditions.

Soccer — open but some closed element (penalty).

**Fine/gross and simple or complex** are other classifications.

Prominent exponents of classification systems are:

**Singer 1982** — bodily movements, duration of movement, pacing condition, cognitive involvement, feedback availability.

**Stalling 1982** — continuity, coherence pacing, environmental conditions, intrinsic feedback.

**Poulton 1957/Knapp 1977** — open and closed continuum.

### **Outcome 2**

Skills need different kinds of practice. When practising closed skills, the performance coach has a 'model' of the optimum movement pattern to 'conform' to. Practice is about gradually refining a movement pattern/performance and repeating the movement pattern until it is habitual.

Practising 'open' skills — requires practice which takes into account the many different ways in which techniques can be used (throwing ball back in field games). Part-whole practice, guided practice, mental practice, practice length, intervals between practice, progressive practice, blocked practice, distributed practice, varied practice, practice in context, physical/passive practice, mental practice.

### **Outcome 3**

Feedback — visual such as demonstration, the use of aids, marking target areas for performer to zone in on all have a role to play in skill development, verbal which could be instructions, praise and fault recognition and manual or mechanical feedback. The Evidence Requirements for the Outcome contain specific details of practice planning principles.

## Higher National Unit specification: support notes (cont)

**Unit title:** Skill Acquisition in Sport and Exercise

### Guidance on the delivery and assessment of this Unit

This Unit is likely to form part of a Group Award designed to provide candidates with the technical knowledge and skills for employment within a sports coach or sport and exercise scientist role.

This Unit could be delivered by lecturer led sessions followed by practical sessions in the form of test/trial sessions, practical experimentation and group work to test and trial approaches to skill development and practice. Initially, it would be useful to look at stages of motor development in a general sense in relation to locomotory skill development — recalling own physical development milestones and then bringing the focus around to sport skills movement patterns.

Whilst each Outcome could be assessed individually using extended response questions, a more integrated approach to the assessment of Outcomes 1 and 2 could be achieved by a single assessment in the form of an assignment requiring set extended responses. This would retain the process nature of the skills and knowledge within these Outcomes and demonstrate the inter relationship of how all this information needs to be assimilated to deliver effective practice sessions. If evidence is produced in the form of an assignment, it is recommended that sufficient time is allowed between the setting of the assessment task and the submission date to allow candidates to carry out the necessary research and produce the evidence.

Outcome 3 will be assessed separately as this is a practical assessment for which performance evidence is required. Evidence may be recorded on a checklist. Candidates could choose sports in which they have a personal interest around which to base their assessments. This would allow for individuals to showcase personal experience of or involvement in athlete development.

All assessments are open-book, with the exception of the practical skill task for Outcome 3 which requires authentication by a tutor/assessor.

#### ***Opportunities for developing Core Skills***

By developing an effective search strategy for accessing and evaluating paper based and electronic sources of complex information on current issues candidates will see the need to have efficient systems of recording, coding and storing outline information for ease of reference and thus may develop *IT* and *Problem Solving* Core Skills at SCQF level 6. By being encouraged to develop skills in computerised record keeping, candidates will develop an awareness of the importance of saving materials and performing back ups.

If candidates produce assignments, and engage in class debate and research tasks, these are useful ways to support the development of the Core Skill *Communication* at SCQF level 6. Although communication skills are not formally assessed, candidates in this Unit are expected to produce and present information to a professional standard, to express essential complex ideas and information accurately and to use a formal structure and recognised format. Use of language, spelling, punctuation and syntax should be accurate and the availability of suitable software packages to support accuracy and professional presentation could further assist the development of skills in the use of IT. During the practical sessions, managing and cooperating with others requires an element of negotiation. By giving encouragement via verbal cues, demonstrations and adapting behaviour to maximise the achievement of the performer, the Core Skills of *Working with Others* and *Problem Solving*, both at SCQF level 6, may be developed.

## Higher National Unit specification: support notes (cont)

### Unit title: Skill Acquisition in Sport and Exercise

A significant level of verbal and non verbal communication skills may be used to respond to in depth questions and present complex information in a style and format most conducive to the learning of the performer. These opportunities could develop the Core Skills of *Communication* and *Problem Solving* at SCQF level 6.

### Open learning

Elements of underpinning knowledge for this Unit may lend itself to an open learning delivery and assessment approach if a Virtual Learning Environment (VLE) platform is used to provide a candidate/tutor interface. Arrangements would have to be in place to authenticate any practical assessment out with the centre. A video submission would be acceptable, accompanied by a valid witness testimony document.

Centres that make use of video evidence must ensure that all involved have given consent to this taking place in line with current policy and guidelines. Centres should also be aware that for the video to be useful, it must be possible to see and hear the candidate and to see and hear the response of the client(s) in order to judge if the verbal and non verbal communication was relevant and effective.

### Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* ([www.sqa.org.uk](http://www.sqa.org.uk)).

## General information for candidates

### Unit title: Skill Acquisition in Sport and Exercise

This Unit has been designed to give you a knowledge and understanding of skill acquisition principles to improve sports motor skills. You will investigate types and design of skills practice sessions and apply this knowledge in the design and delivery of a sports skill practice session.

On completion of the Unit you should be able to explain the principles of sports motor skill learning and the selection of practice sessions for optimal development of sport motor skills and plan, deliver and evaluate a sport skills practice session to enhance performance.

Candidates wishing to access this Unit should have some experience of sports participation and associated skills development in order to provide a basis on which to develop a skill enhancement focus. This could be evidenced by recent participation at a recreational level in any sport.

This Unit is designed for those candidates interested in improving sports performance — possibly sports coaches and applied sport and exercise scientists. The candidate should have some familiarity with basic sports coaching methodology, session delivery and involvement as a performer in sports skill practices. The candidate will be introduced to the principles of motor learning, classification of skill and subsequent practice arrangements and the planning and delivery of a sport skills practice session. The Unit should be regarded in the broader context of the process of training to improve sports performance for athletes in different sports. It provides excellent underpinning knowledge of strategies and principles to employ for sports skill enhancement.

On completion of the Unit the candidate should be able to explain the principles of human motor skill development, explain the principles of motor sport skills learning, select practice sessions for optimal development of sport motor skills and plan, deliver and evaluate a sports skill practice session to enhance performance.

There are opportunities to develop the Core Skills of *Communication*, *Problem Solving*, *Working with Others* and *Information Technology* at SCQF level 6 although there is no automatic certification of Core Skills or Core Skills components.

This Unit will be assessed by a mix of restricted response questions, preparation of a session planning document for a skills practice session and a practical delivery of this session.