



KLiC Activity Scenario Template – Informal Setting

Activity title:

Fencing – Further Techniques

Subject:

Informal Sports Activity

Student/Athlete age:

All Ages

Estimated duration:

75 minutes (excluding setup time)

Learning content

- 10 minute warm up
- equipping proper fencing gear
- practice of new moves or review already learnt technique
- sparring
- stretches to finish
- 15 minute lesson review

Learning objectives

The aim of this scenario is to devise a method of training an amateur athlete or group of amateur athletes, with no prior knowledge in fencing. This scenario covers various different basic techniques, as well as fighting, styles with the Foil, Sabre and Épée. With the use of the KLiC SensVest technology the training can be developed to work with the athlete(s) on a more physical level to understand their strengths and flaws more easily, while the output of the sensing technology can be readily available to help correct those flaws and enhance the strengths.

Inquiry-based character (if applicable)

Questioning the correct stance and movement of the athlete by observing accelerometer readings, in an empirical way (e.g. looking at the salient features of the accelerometer outputs such as a “spike” rather than actual detailed measurements).

Applied technology (if any)

KLiC SensVest, with wrist and ankle accelerometers, communications base station with a Laptop and a projector.

Materials needed (if applicable)

Foil, Sabre or Épée. Floor mats, protective head gear, proper leg and torso coverings.

Description of Activities

Brief

At the beginning of the lesson the athletes will be set to warm up their muscles through a series of stretches, to ensure that any athlete won't injure themselves during the course of the lesson. During which a brief explanation to the rules of Fencing will be given to any new participants.

Practicing of new moves or reviews of previous techniques will then be spent with one of the athletes wearing the SensVest. During this time observers will be able to see the collected data on the fly and it can be explained to them how it works. Depending on the confidence of the instructor on how well the athletes are performing the instructor will go over new techniques where as if they're not performing that well the instructor will revise previous techniques with them. After which the athlete wearing the SensVest will be requested to remove it for sparring, this is to reduce chance of damage to the vest itself. This is then followed by stretches to finish the class and then a final 15 minute discussion.

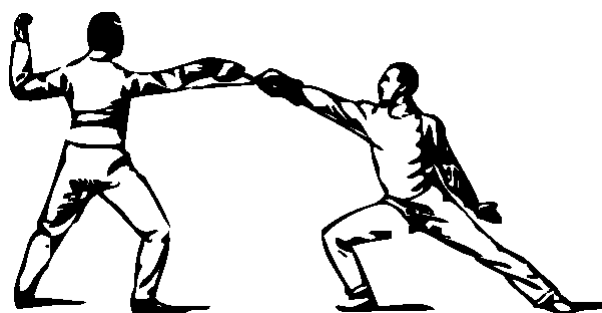
The discussion will cover details about the recorded data from the SensVest. In an informal manner it will be explained how through the force applied to the swing of the sword in hand can be seen through the output graphs and how it can relate to the biological vitals of the wearer. Questions will be answered during the course of the discussion.

Lesson Guidelines

10 minutes	Warm ups with discussion of the Rules
5 minutes	Equipping fencing gear, everyone has basic kit and will only be trained with Foils for the second lesson
20 minutes	<ul style="list-style-type: none"> - Briefly review of the material covered in the previous introductory session - Demonstrate to the athletes a parry and how it can be followed through with a lunge from the defender as the attacker will be left open. - Demonstrate to the athletes a coupe which is where the foil can be flicked over the blade to avoid a defender's parry. - Demonstrate to the athletes a feint attack which is where the athlete will pretend to attack their opponent to create a weakness in their defence.
20 minutes	Sparring where the athletes break up into groups of two and will then practice what they have learnt against each other while the instructor observes their actions and give advice where suited.
5 minutes	Stretches to finish
15 minutes	Discussion about the results from the SensVest data and explain where athletes can improve their skills followed by a quick questionnaire for any observer, athlete and instructor to fill in making it clear in the feedback what they have learnt from the discussion.

Riposte

During fencing there will be instances where as a athlete is defending against an opponent and when they are attacked the athlete should be using the parry, taught in the first lesson, to deflect the opponents attack. When the opponent has been deflected the opponent is open for an attack, the riposte is the counter attack. This counter attack is often made from the en guard stance as the opponent hasn't retracted from their deflected lunge. However an opponent can anticipate the change of a riposte and retract causing the athlete to perform a lunge themselves.



In fencing you have an offender and defender during the course of the match. Offenders and defenders only switch roles only during attacks, giving the defender the opportunity to counter attack and thus switching the role to be an attacker.

During the riposte technique the SensVest technology can be used to monitor the movements of the athlete and determine the accuracy of the counter attack, from there the athlete's performance can be assessed and improved by analysing the results of the data capture.

Coupe

During a match a athlete can be blocked by an opponent's parry. In instances where an opponent is attempting to block an athlete can flick their foil blade over their opponent's and attempt to complete the attack and make a score on the opponent. The coupe is controlled with a simple flick action using the wrist and in practice can be performed to go over the opponent's blade to such a degree where the opponent doesn't notice that the coupe has happened and is unable to react to the athletes succeeding lunge.

Like the lunge the coupe is an offensive move but is dependent on another attack in progress. At the second lesson the coupe will be done during a lunge. Traditionally the a lunge is performed with leg work and sword work simultaneously, when initially being taught the coupes the athletes will be shown to start the lunge with leading arm work then midway though perform the coupe and start the leg work. This is because the coupe is easily performed when the points of the blades are closer to each other. Over practice the athletes will develop their skill to be able to perform a smooth coupe with a lunge.

During the riposte technique the SensVest technology can be used to monitor the movements of the athlete and determine the accuracy of the coupe, from there the athletes' performance can be assessed and improved by analysing the results of the data capture.

Feint

The feint is another offensive move which precedes an attack. Similar to a coupe the feint is used to avoid an opponent's parry but the idea is to make an opponent commit to the parry before attacking and then when the opponent's defenceless the attack is initiated. A feint is performed by

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simple arm movement where the athlete brings their sword forward as to perform a lunge but quickly bringing it back. This instigates a reflex action of the opponent to parry the blade and not realising that the athlete's blade has been retracted and now going forward for an attack. In the second level the attack will be a lunge.

During the riposte technique the SensVest technology can be used to monitor the movements of the athlete and determine the accuracy of the feint, from there the athletes' performance can be assessed and improved by analysing the results of the data capture.

SensVest Discussion

After the athletes have completed the lesson material a 15 minute discussion will be held to explain how the athletes can improve their performance with the use of the SensVest Technology. When a single athlete is wearing the SensVest with the wrist and ankle accelerometers the data will be captured and translated into a graph showing the X, Y and Z of the accelerometers. Indicating to the class what the orientation of the accelerometer when placed on the athletes body, the class will then be shown that when the athlete moves his arm forward the respective axis will show a spike of movement. Through this it can be show how much force an athlete is putting into the movements and what direction it is travelling in.

Image References

http://dangerbrain.files.wordpress.com/2011/02/12362683061961974133johnny_automatic_riposte_from_parry_of_quarte-svg-hi1.png

Assessment (if applicable)

The purpose of this informal scenario is to encourage the understanding of salient features that can be recorded during training, in order to understand movement and force. No specific assessment recommendation is given, as the technology is there to support the instructor in illustrating technique in an empirical way.