



KLiC Activity Scenario Template – Informal Setting

Activity title:

Fencing with Sabre and Épée

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 students will be set to warm up their muscles through a series of stretches, to ensure that any student 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 students 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 trainer on how well the students are performing the trainer will go over new techniques where as if they're not performing that well the trainer will revise previous techniques with them.

After which the student 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 can train with Foil, Sabre or Épée.
20 minutes	<ul style="list-style-type: none"> - Briefly review of the material covered in the previous lesson. - Move onto how the Sabre or Épée can be used in fencing and how the target areas different from the Foil as well as not being limited to just hitting with the point of the blade. - Demonstrate to the students an Appel where a defender will attempt to block an attack but missing the offender's sword causing them to be left open for the actual attack.
20 minutes	Sparring where the students 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 students can improve their skills followed by a quick questionnaire for any observer, student and trainer to fill in making it clear in the feedback what they have learnt from the discussion.

Sabre

The Sabre is an alternative sword that can be used in the fencing sport. Whereas the foil can only score on the torso and only with the point of the blade the sabre can score with the edge of the blade and anywhere from the waist up excluding hands. In history where fencing was often used in duels the sabre was one of the types of swords available to the duellers. The sabre would have a sharp edge to it with a guard that covered the top of the hand which also descends down around the hand to the base of the hilt. Frequently victors would win duels by cutting their opponents rather than stabbing them like a foil, however this was still possible with a sabre. In modern day where the sabre is used for the fencing sport the edge of the sword is not that dissimilar to that of a foil. The blade itself is either square or round to prevent damage and the top of the blade has a rubber stopper on it. Similarly it is down to the athlete to make sure of the safety of the weapon is in top condition.

Scoring with the sabre as previously stated covers everything from the waist up except the hands, both left and right. Because the sabre can be used to target the head the athlete's en guard position with the sabre tends to be more vertical in order to protect the head and arms. The tip of the blade is often kept around the height of the top of the head. This allows for good cover and for easier attacks rather than having the blade straight vertical causing the athlete to take more time in their attack.



Additionally when using the sabre additional forms of the parry must be adopted. These are the over head parry. The sabre can target the head and in order for the athlete to block the attack the parry must be performed differently. When the opponent attempts a head strike the athlete must lift their blade straight up to a couple of inches above their head. During an opponent's attack they can put more force into the wrist and as a result cause the blade to bend and still strike the athlete. Additionally when an opponent is blocked by the athlete the athlete has an opportunity to block perform a counter attack, quickly striking the torso.



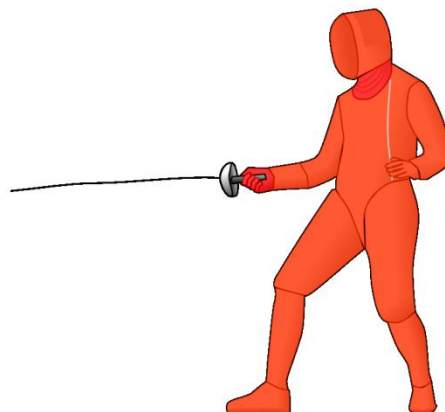
Épée

The épée is traditionally the last sword used in fencing and in similar design to the foil. With the foil the only targetable area is the torso but the épée targets the whole body including the heads. The épée was introduced into the fencing sport as a more traditionally way of duelling as with historical duelling the blade was allowed to target anywhere on the body. The épée has a much larger guard and is used to only cover the top of the hand unlike the sabre which covers the side of

Project Number

505519-LLP-1-2009-1-GR-KA3-KA3MP

the hand as well. Scoring with the épée involves only the point of the blade and can target the entire body. The traditional en guard position for the épée is to keep the blade at a more horizontal level; this is because the target area is the whole body. The target area of the sabre is from the waist up, excluding hands, the en guard position is that so that the sabre can readily protect the area easily. Similarly the épée is kept in the optimum area to give a parry the shortest amount time make contact with the opponents blade. With the sabre the parry had to be adapted to block attacks to the head. Additionally the épée has an equivalent need for additional parry techniques, the épée will use the over head technique like the sabre but additionally the athlete must be able to block for the legs. If an opponent attempts to strike the legs the athlete needs to turn their arm at the shoulder to have the point of the blade facing down, then from there the athlete will proceed to push the blade out of the way from the elbow like a traditional parry to the torso. From there the athlete will have the opportunity to riposte.



Apel

The Apel is similar to a feint attack, where a feint attack is used to make an opponent react to an attack that isn't expected, the apel is to make an opponent flinch. The athlete will proceed to stamp their dominant foot on the floor, the opponent will then flinch and as a reaction attempt to parry. From this the athlete can perform a coupe going around the opponent's blade and then have an opportunity for a direct line of attack. During the Apel the SensVest technology can be used to capture the movement data of the athlete and be used to assess the performance of the technique.

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 a athlete is putting into the movements and what direction it is travelling in.

Image References

http://upload.wikimedia.org/wikipedia/commons/e/e3/Fencing_saber_valid_surfaces.svg

<http://www.londonfencingclub.co.uk/pictures/paris/parry.jpg>

http://en.wikipedia.org/wiki/File:Fencing_eepee_valid_surfaces.svg

Assessment (if applicable)

The purpose of this informal scenario is to encourage the empirical understanding of salient features that can be recorded during training, in order to understand movement and force. Therefore no formal assessment is recommended.