

You will be analyzing
the lateral pass in
rugby and the spike
in volleyball - lab...

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Rugby lateral pass and spike in volleyball a) Skill ification Skill ification is a system based on the notionthat movement skills are predicted by factors such as: preciseness of a movement; the presence of a definite beginning and ending of the movement; and the effect of the prevailing environment on the skill's performance. However, the movement skills used in rugby lateral pass and volleyball spiking are affected by the prevailing environment. They, therefore, fall under closed and open skill classification respectively. Rugby falls under closed skill classification because the lateral pass takes place in a predictable and stable environment. The environment does not, therefore, affect the skills and movements are based on a set of patterns. In addition, the performer is conversant with what exactly he or she is doing and when. On the other hand, spiking in volleyball is based on an open skill classification. This is because when the environment changes constantly during the game, one has to continually adapt the movements. Skills such as a lateral pass in rugby are externally paced and predominantly perceptual. On the other hand, closed skills take place in a predictable as well as a stable environment (Payton 36).

1b). Overall performance objective

The overall performance objective is the ultimate goal that must be achieved with any kind of sports by the respective players. The Overall Performance objective for a lateral pass in Rugby is an accurate projection with speed, while that of spike in volleyball is a projection with accuracy (Ashby and Heegaard 289).

2) Analysis of performance of each skill

a) To describe body segment motions in the rugby lateral pass, there is a lever action in the elbow and a wheel-axle movement on the shoulder. On the other hand, the spike in volleyball, there are 2 wheel-axle movements, in the shoulder and in the wrist, while a lever motion takes place on the elbow (Payton 76).

b) In rugby lateral pass the sequence is transverse flexion at the shoulder, elbow extension, and wrist extension. The starting position is when the player is holding on to the ball and has squared his shoulders towards his ankles. On the other hand, the Volleyball spike-analysis of body segment movements is complex. These movements involve the take off phase as well as coordination aspects during flight phase. The most commonly preferred spike position is position four against diagonal spikes. The flight angle of the ball is also considered while the jump height is essential for the success in volleyball spikes. In addition, body segments contribute in a sequential manner from proximal towards distal in order to increase the optimal jump height (Payton 91).

c) In the rugby lateral pass, the hands follow a curvilinear path; to perform an effective pass, the two hands are used by the player to carry the ball at chest height. While carrying the ball, the player spreads his fingers around the ball's seams and keeps the palms of the hands away from the surface of the ball to protect it from being attacked when running (Ashby & Heegaard 302).

When passing the ball, the player looks at his partner waiting to receive it to ensure that the ball is passed accurately. However, the players keep their

elbows bent and make sure that they swing their arms across their bodies. It helps them draw the ball across 1 hip. Having the elbows close to the body, the players swing the ball using an arc angle. The ball is kept off the hip and towards the player whom is receiving the ball. In addition, the chest of the receiver is always turned in the opposite direction. The ball is pushed by the players' back hand, and the front hand guides it in the correct direction (Payton 29). When the ball leaves the hand, the player flicks his wrists and points towards the target. He then changes his running angle so that he can support his partner, receiving the ball, as they end in the direction of the target lines.

In volleyball spike, the hands follow a rectilinear path; the rotation of the trunk is alleviated by a lateral arm block. The players are able to maintain and regain balance by this kind of arm movement (Ashby & Heegaard 654). In addition, the player doing the attack, coordinates his or her the arm to have a precise swing. He or she ensures that the upper reversal point of the CoG passes along with the lower reversal point. If not so, the players involved in the two impulses will experience a negative effect. However, the player preventing the attack does not change the time of blocking arm movement up to the last moment of contact with the ground. This increases the vertical velocity during takeoff and hence increases the jump height.

d) During the volleyball spike tackle, the kinetic chain of energy is used by the shoulders of the players. The body is, therefore, the linking system of articulated segments that store the kinetic energy. The energy is transmitted from the legs, hips and trunk, and finally to the shoulders girdle during the tackle. However, the rapidly developing deceleration forces develop within

the shoulder girdle and are attenuated by a coordinated conscription of the muscles. However, during the lateral pass in rugby, some of the kinetic energy settles in the two hands grabbing the ball, while much of the energy is used in the legs when running. The kinetic energy in the hands is used when the player is passing the ball or receiving it from his colleague (Ashby and Heegaard 282).

e) The biochemical principles used to achieve OPO in both volleyball spike and rugby lateral pass include: good nutrition and appropriate exercise in order to achieve all the fitness areas including-speed, flexibility, strength, agility, anaerobic and aerobic endurance for both volleyball spike and rugby lateral pass (Ashby & Heegaard 614).

Works cited

Ashby, BM., and Heegaard, JH. “ Role of arm motion in the standing long jump.” *Journal of Biomechanics* 35. 12 (2002): 1631-1637.

Payton, Brian. *Introduction to sports biomechanics*. New York: Bloomsbury, 2006. Print.