

Ultimate frisbee essay



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Declan Iles Ultimate Frisbee Player Test Results (23rd January 2015)

Introduction

This study will concentrate on your demands analysis, trial consequences and informations analysis in order to place your failings and countries for betterment in your clean public presentation. Because Ultimate Frisbee (UF) has merely late become professional there is a deficiency of literature refering the athletics. However, the physical demands of UF are similar to those in other good established athleticss such as American Football, Rugby, and Basketball.

Physical DETERMINANTS FOR SUCCESS IN ULTIMATE FRISBEE

There are no physical determiners supported by research for success in UF public presentation. Comparisons with other athleticss identified American Football as necessitating similar physical determiners as UF with the major exclusion that UF is non a contact athletics. These similarities include the format of the game consisting short quarters, repeated high strength exercising such as sprinting, jumping and throwing, interspersed with active remainder and the frequent limitless rotary motion of participants. The most comparable place on an American Football squad with UF is a broad receiving system. Wide receiving systems in American Football (Robbins, 2011) are required to possess:

- Acceleration.
- Sprint velocity.
- Dash endurance.

- Vertical leap tallness.
- Agility.
- Hand-eye coordination.

These demands are every bit of import in your athletics and will be used as the physical determiners for success in UF. Sprint and leap ability are identified as the most of import requirements for broad receiving systems in American Football (Robbin and Young, 2012) .

NEEDS ANALYSIS

You are an experient Great Britain Junior and U23 UF participant. You are 24 old ages old, 177cm tall and weigh 77kg. Your purpose is to come on to the senior international side. You stated that you are comparatively content with your current physical public presentation but the fittingness required to vie at the highest degree of UF is altering with less accents on aerophilic fittingness and a greater focal point on dash endurance. This means an addition in your ability to sprint repeatedly using your anaerobiotic energy system. You acknowledged that you are rather short in stature which is a confining factor for a guardian who is frequently viing against taller oppositions and high spots the demand to maximize your leaping tallness. Based on your stated Needs Analysis and the chief requirements of an American Football broad receiving system we agreed to measure your physical public presentation in the cardinal countries of the perpendicular leap and dash endurance in order to measure your strengths and failings.

Trial Choice

Standing Vertical Jump Test

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A perpendicular leap consists of raising one's Centre of gravitation every bit high as possible in the perpendicular plane entirely with the usage of one's main musculuss. The standing perpendicular leap trial measures an individual's power, specifically of the lower limbs, and their jumping ability, which is an of import determiner of public presentation in many athleticss (Markovic et al, 2004). There are many established leap trials such as the ' belt mat' , ' contact mat' , ' force plate' and ' Vertec' . These are outlined below in Table 1.

| Trial | Protocols |
|-----------------|--|
| Belt mat | Participant stands on a mat have oning a belt that is attached to the mat v through a feeder. The participant performs the perpendicular leap and the achieved can be determined by the length of tape that has been pulled thr feeder. |
| Contact mat | Participant stands on a mat that contains embedded micro-switches that d compaction. When the participant performs the perpendicular leap the ma proctor connected to the mat records the clip from take-off to set downing perpendicular leap tallness. |
| Force home base | Participant performs the perpendicular leap on the force home base which the land reaction forces and enter the clip from take-off to set downing to perpendicular leap tallness. |
| Vertec | Participant bases by the Vertec (a steel frame building with horizontal van performs a perpendicular leap and reaches up and hits the vanes which ar out of the manner by the manus of the participant when they have jumped |

bespeak the tallness reached.

The force home base and belt mat trials reportedly produce accurate steps of perpendicular leap tallness (Buckthorpe, Morris and Folland, 2012) but, similar to the contact mat, do not include the demand to stretch or make every bit high as possible in the perpendicular leap which are cardinal to UF. The Vertec trial requires the skill elements of timing and coordination in the usage of the upper organic structure to accomplish maximal tallness. The trial requires the jumper to to the full widen and make every bit high as possible at the extremum of the leap, doing it UF athletics particular. It is besides used to measure broad receiving systems in American Football. We agreed the Vertec standing perpendicular leap trial was most appropriate to mensurate your perpendicular leap.

Runing Vertical Jump Test

The running perpendicular leap trial is a more athleticss specific step of your perpendicular leap capableness. It is more common for jocks to hold a run up into a perpendicular leap in a game state of affairs than from standing start (Ham et al, 2007) .

Both the Sargeant Jump and Vertec Protocols were considered to prove your running perpendicular leap. The protocols are described in Table 2.

| Trial | Protocol |
|----------|---|
| Sargeant | This protocol consists of a run up and jumping every bit high as possible |
| Running | the top of the leap the participant reaches up and slaps their manus |

Vertical Jump covered in chalk, on the wall. The manus print is so measured from the
 Test and the consequence recorded.

Vertec Running Similar protocol to that of the standing perpendicular leap, except the
 Vertical Jump meter run up country is marked with a cone to the left and right of the
 Test

The Sargeant Jump trial was considered due to its simpleness and its athletics specificity with the full range at the extremum of the leap, but there are inquiries of dependability and cogency with this protocol. There are besides practical issues with this trial, where the jumper is restricted when leaping vertically due to executing it following to a wall. For this ground the Vertec trial and equipment was favoured over [the belt mate, contact mate and force home base as these did non let for a athleticss specific trial - these trials were considered for the standing leap and we are sing the running leap - is this correct?] , but is more valid and dependable than that of the Sargeant Running Vertical Jump trial. Key to success is the ability to speed up rapidly into a high perpendicular leap and make out and up every bit high and every bit far as possible imitating receiving or stoping a base on balls.

The Yo-Yo Intermittent Recovery Test

There are two different protocols for the Yo-Yo trials: the Yo-Yo Intermittent Endurance Test (YYIET) and the Yo-Yo Intermittent Recovery Test (YYIRT) , each of these trials has 2 Levels. The YYIET has shorter remainder periods and slower velocities, whilst the YYIRT has longer remainder periods and higher velocities in which to finish the birds. The YYIRT was chosen to mensurate your dash endurance as it replicated the velocity and strength of
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UF more than the YYIET. Level 1 of the YYIRT focuses on the capacity to transport out intermittent exercising taking to a maximum activation of the aerophilic system. Whilst Level 2 starts at a higher velocity of 13kph mensurating your capacity to retrieve from repeated exercising with a high part from the anaerobiotic system doing it more specific to the demands of UF.

The YYIRT has high duplicability and sensitiveness, leting for elaborate analysis of the physical capacity of jocks in intermittent athleticss, where the aerobic and anaerobiotic systems are extremely taxed (Krustrup et al, 2003) . The YYIRT has a pick of degrees of proving to retroflex the demands of your high strength athletics necessitating repeated dashes interrupted by remainder periods similar to other invasion games such as football, ruggar, hoops. The YYIRT was favoured over a lab based thorough incremental treadmill trial to mensurate your dash endurance due to the easiness in which it can be set up and carried out, whilst still being a valid and dependable trial.

BATTERY OF TESTS

Prior to proving you completed a pre-test questionnaire and consented to the trials. The trials selected, every bit good as their protocols and equipment list for easiness of future mention are shown in Appendix 1.

Consequence

Standing Vertical Jump

Your consequences in the standing perpendicular leap trial are shown in Figure 1, where you achieved an mean perpendicular leap tallness of 27. 33 ± 0. 29 inches, with the highest leap of 27. 5 inches and lowest leap of 27 inches.

Comparing your mean standing perpendicular leap mark with the normative informations (Wood, 2012) in Table 3, you are at the top terminal of the ‘ Very Good’ standards for grownup males. We can reason that your standing perpendicular leap tallness compared to that general population is strong, about in the ‘ Excellent’ class. There is besides good consistence between your standing perpendicular leaps, a fluctuation of merely 0. 5 inches between the 3 efforts. However, as you are looking to step up to the senior international side, it would be advisable to better your standing perpendicular leap to the ‘ Excellent’ class to get by with viing against other elect jocks who are taller and/or capable of higher perpendicular leaps.

| Rating | Adult | Adult | Centimeter | |
|-----------|------------------|---------------|------------------|------------------|
| | Males | Females | Inchs | s |
| Excellent | & A ; gt ; 28 | & A ; gt ; 70 | & A ; gt ; 24 | & A ; gt ; 60 |
| Very Good | 24 - 28 | 61 - 70 | 20 - 24 | 51 - 60 |
| Above | 20 - 24 | 51 - 60 | 16 - 20 | 41 - 60 |

Average

| | | | | |
|---------|---------|---------|---------|---------|
| Average | 16 - 20 | 41 - 50 | 12 - 16 | 31 - 60 |
|---------|---------|---------|---------|---------|

Below

| | | | | |
|---------|---------|---------|--------|---------|
| Average | 12 - 16 | 31 - 40 | 8 - 12 | 21 - 30 |
|---------|---------|---------|--------|---------|

| | | | | |
|------|--------|---------|-------|---------|
| Poor | 8 - 12 | 21 - 30 | 4 - 8 | 11 - 20 |
|------|--------|---------|-------|---------|

| | | | | |
|-----------|--------------|---------------|--------------|------------------|
| Very Poor | & A ; It ; 8 | & A ; It ; 21 | & A ; It ; 4 | & A ; It ; 11 |
|-----------|--------------|---------------|--------------|------------------|

Running Vertical Jump

Your consequences in the running perpendicular leap trial are shown in Figure 3. You achieved an mean running perpendicular leap height off your right pes of 27.83 ± 1.15 inches, with the highest leap off your right pes of 28.5 inches and lowest of 26.5 inches. You achieved an mean running perpendicular leap tallness of your left pes of 29.66 ± 1.26 inches, with the highest leap off your left pes of 31 inches and lowest of 28.5 inches.

The lone information on a running perpendicular leap trial is of elect degree Australian Rules Football participants (Tanner and Gore, 2012) , in Table 4. Australian Rules Football is similar to Ultimate Frisbee as the participants have to leap vertically to crush each other to the ball. Based on your tonss your mean highs achieved off your right and left pes correlative to the normative informations. We must bear in head that the normative information is of elect degree Australian Rules Football participants.

Your mean running perpendicular leap from both your right pes (27.83 ± 1.15 inches) and left pes (29.66 ± 1.26 inches) were higher than that of your mean standing perpendicular leap tallness (27.33 ± 0.29 inches) from the old trial which was expected. This highlights the importance of a run up on your perpendicular tallness you can accomplish.

There is a disparity of 1.83 inches between your mean running perpendicular leaps off each pes: left pes (27.83 ± 1.15 inches) and right pes (29.66 ± 1.26 inches) . It would be desirable to increase the perpendicular leap height off your weaker right pes, letting you to leap systematically off either pes because leaping off your preferable leg isn't ever a possibility. There is besides great discrepancy between your running perpendicular leaps compared to that of your standing perpendicular leaps. It would be advantageous to your public presentation to increase your consistence of your running perpendicular leaps.

Runing Vertical

Jump

| | |
|------------------|-----------------|
| Left Footed | Right Footed |
| 29.92 ± 2.75 | 27 ± 3.14 |

Yo-Yo Intermittent Recovery Test

Your consequences in the Yo-Yo Intermittent Recovery Test on Level 2 can be seen in Table 5, which shows that you completed 8 birds on Level 2, covering a distance of 760 meters and making a velocity of 17.5 km/hr.

Yo-Yo Intermittent Recovery Test

Results

| Phase | Speed Level | Speed (km/hr) | Shuttles (2x20m) | Distance (m) |
|-------|-------------|-----------------|--------------------|----------------|
| 19.3 | 20 | 17.5 | 8 | 760 |

Comparing the consequences of your Yo-Yo Intermittent Recovery Test (Level 2) to normative informations (Wood, 2012) , as shown in Table 6, you are placed in the ' Good' standards for grownup males. Although this possibly satisfactory for the mean population and lower degree jocks, to step up to an international degree athletics which requires repeated sprint ability and endurance you will necessitate to better your Yo-Yo Intermittent Recovery Test (Level 2) mark to at least the ' Excellent' standards.

| | Adult Males | Adult Females |
|-----------|------------------------|------------------------|
| Rating | Distance Covered (m) | Distance Covered (m) |
| Elites | & A ; gt ; 1280 | & A ; gt ; 800 |
| Excellent | 1000 - 1280 | 720 - 800 |

| | | |
|---------------|----------------|----------------|
| Good | 720 – 1000 | 480 – 720 |
| Average | 480 – 720 | 360 – 480 |
| Below Average | 280 – 480 | 160 – 360 |
| Very Poor | & A ; It ; 280 | & A ; It ; 160 |

Summary

Based on your stated Needs Analysis and cardinal public presentation determiners based on the similar demands of an American Football broad receiving system, we tested your jumping and sprinting capableness. A sum-up of the consequences are shown in Tables 7 and 8.

| Needs Analysis | Trial | Consequence: | | Consequence Variations | | Normative information categorization | Analysis |
|----------------|-----------------------------|--------------------|---------------------------------|------------------------|------------|--------------------------------------|--------------------|
| | | Average (Inches) | Consequence: Highest (Inches) | Lowest (Inches) | (Inches) | | |
| Vertical leap | Standing Vertical Jump Test | 27. 33 | 27. 5 | 27 | 0. 5 | Very Good | Imp Exc Crit |

(Vertec)

| Runing | Runing | Vertical | Vertical | Vertical | Vertical | Vertical | Vertical |
|-------------|--------|----------|----------|----------|----------|-------------|----------|
| perpendicul | Jump | R 27. 83 | R 28. 5 | R 26. 5 | R 1. 33 | Right - | Good |
| ar leap | Test | L 29. 66 | L 31 | L 28. 5 | L 2. 5 | Left - Good | |

(Vertec)

| Needs | Trial | Consequen | Consequen | Consequen | Consequen | Distan | Categoriza |
|----------|-------|-----------|-----------|-----------|------------|----------|------------|
| Analysis | Phase | Speed | Speed | Speed | Shuttlecoc | Coverion | |
| | | degree | Km/hr | | 2x20 | d (m) | |
| Enduran | Yo-Yo | 19. 3 | 20 | 17. 5 | 8 | 760 | Good |

Intermitt

ent

ce Recovery

sprinting Test

(Level

2)

Significant observations are:

- Your standing perpendicular leap was in the ‘ Very Good’ standards, but for international degree UF your standing perpendicular leap should be in the ‘ Excellent’ standards.
- Your left leg appears dominant proposing that your right leg needs beef uping together with improved jumping technique.
- You need to increase the mean tallness you achieved from your running perpendicular leap (right pes take off) as it is merely marginally better than the tallness achieved in your standing perpendicular leap.
- You need to cut down the fluctuation between the highs achieved from your running perpendicular leap (left and right pes take-offs) and attain greater consistence in the highs recorded.
- Your dash endurance is classed as ‘ Good’ within the normal population. Significant betterments in your dash endurance are required for you to be able to keep sufficient public presentation degrees during an UF lucifer. This will necessitate you to prolong increasing velocities whilst your musculuss are working anaerobically

Mentions

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Appendixs

Trial Protocol

The Vertec is a steel frame building with horizontal vanes which are rotated out of the manner by the manus of the participant when they have jumped to bespeak the tallness reached. The Vertec is set to an appropriate tallness ; normally this is done by holding the lowest vane at the same tallness of the standing tallness of the participant with one arm to the full extended upward. However, due to the ability of some participants, the vanes need to be set higher and the tallness is so included to their leap tallness. The participant bases on their preferable side to the Vertec and performs a countermovement leap with arm swing ; at the highest point of their leap they hit the highest vane possible. The participant has 2 familiarization tests, followed by 3 efforts with 2 proceedingss rest in between each effort.

Running Vertical Vertical Jump Test. The equipment and process is similar to that of the Standing Vertical Jump test apart from a cone placed 5 meters to the left and right of the

Vertec. The tallness of the Vertec is the same as the Standing Vertical Jump trial. The jock has a 5 meter run up and performs a running perpendicular leap off the outside leg and hits the vanes of the Vertec with the inside arm. The participant has 2 tests from either side, followed by 3 efforts from one side and so the other, with 2 minute remainder periods in between each effort.

The set-up for all Yo-Yo Trials can be seen the image below for easiness of future mention. The process for the Yo-Yo Intermittent Recovery Test is as follows ; the jock begins the trial on the start line, when the “ bleep” sounds the jock runs towards the 20 metre marker and should make it before the 2nd “ bleep” , where the jock so must turn around and run back to the original starting line. There is so a 3rd “ beep” meaning the terminal of one bird, at which point the jock will hold 10 seconds of active recovery where they walk 5 meters to a marker and back to the start line. The following “ bleep” will bespeak the start of the following bird. If the jock fails to finish a bird within the 3rd “ bleep” twice, the jock and the trial Michigan and last bird the jock completed is recorded. The mark can be given as the entire distance covered, the degree figure achieved or the velocity degree. Alternatively, VO2 Max can be calculated from the consequences of the trial utilizing the undermentioned equation ; VO2 Max (mL/min/kg) = YYIRT Level 2 concluding distance (meters) x 0.0136 + 45. 3.

Appendix 1 – The Battery of Tests including Protocols and Equipment list.

1

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