

AUSTRALIAN RUGBY UNION LEVEL 3

ASSIGNMENT NO. 12

How is Rugby Fitness testing applied in the HKRFU and how it relates to the game?

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Team chosen - Hong Kong (Men) 15s National Squad

Fitness testing in Hong Kong Rugby gives both the players and coaches information on the progress or lack of progress within each individual team members and the entire teams training. The results, obtained from fitness testing, can be used to motivate stronger performance. Pre training fitness testing, including speed work, endurance and strength testing, are difficult to implement as HKRFU has found that the majority of national players are very committed to their own club side. This has left the national coaching staff with very little preparation time available before the representative season commences.

Before the Senior National Rep season, which runs between April and June, the National Selectors identify players usually in October. Those selected will play in trial matches held in November, following which 40 players will be selected to join the HK Senior National Training Squad. Players should then attend all training sessions, where fitness testing will be included at various stages leading up to the final trials held at the end of February, when a final 30-man squad will be announced.

What is Fitness testing?

Fitness testing is used to identify specific development areas for each player. These areas can be addressed by training and development programs, with the ultimate aim of providing a more valuable and balanced player to the team.

The Hong Kong Coaches need to assess the fitness level of all their players. They can of course look at the actual play and whether it falls apart in the last 15 minutes (as most players do in Hong Kong's semi professional competitions), but the coaches also benefit from taking a structured approach and requiring the team to undertake specific fitness testing.

Some examples of fitness testing are;

1. Beep test.

Maximal progressive- gets harder the longer you stay in.

Specific to Rugby – as it is sport specific – i.e. you run in rugby and it is weight bearing.

Predicted MVo2 results are available straight away from the chart.

2. Speed Gate.

Over varying distances – 15m , 20m , 25m
Pure speed off the mark

3. Pure Strength

3x maximum bench press.

4. V02 max

This tells us the amount of oxygen the body is using. Originally performed on a bicycle, but now often undertaken on a treadmill. This can be difficult test to use, as sports facilities are limited within Hong Kong and reservations sometimes need to be made one year in advance.

When subjecting our players to any test we consider the following:

- Variation: we do not simply pace the distance on a speed test, you can not compare an indoor result with an outdoor result, taking into consideration about calibration and standardisation. For example we use calipers for skin fold measurements and have the same person doing all the test.
- Communication. We tell the players why they are being tested, what the consequences of the outcome might be and how development needs might be addressed. This helps them aim for the desired results and makes them more open to any suggestions which maybe given as a result of the test findings.
- Organisation. We find that publishing the results of the test as quickly as possible helps motivate the players and assists in getting them to buy into the results.
- Empathy. We take into consideration the caliber of players that we have in Hong Kong, and attempt to treat every player as an individual rather than compare results with other players.
- Hong Kong is a transient city where players come and go. This can lead to negative attitudes when it comes to semi professional players in training, the effects of which can be seen on the individual's fitness. We try to use the fitness test as a confidence booster as well as a requirement of representative rugby playing standard.
- In addition, we try to keep the two different groups (transient resident and permanent resident) separate at the time of testing. For example one group will be doing the beep test, whilst the other will be doing another form of test. This way the more serious players will not be affected by the lack of commitment from the more 'happy go lucky' players and the desire to achieve good results will remain. Likewise, the more relaxed players will not be too disconcerted by the seriousness sometimes displayed by the permanent Hong Kong residents.

The table below gives a view of how HKRFU evaluate fitness testing:

AREA	TESTS	ADVANTAGES	DISADVANTAGES
Body Composition	Height/weight	Simple	Takes no account of muscle mass
	Body mass index	Simple	Lacks accuracy
	Body fat - calipers	Quick and accurate	Technique needs practice. Interpretation of results needs care.
Endurance	Cooper test	Easy to administer	Needs a track. Pacing of run can be difficult.
	Beep test	Large groups can be tested. Pacing and warm-up no Problem.	Accuracy of measurement, and calibration of tape/tape recorder essential.
	V0 2 max	Accurate	Need specialised equipment
	Step test	Submaximal	Small inaccuracies in measurement of recovery heart rate give large variations in results.
	Wingate Test	Accurate	
Strength / Power	Sargent jump	Basic Jump Test.	Standardising technique.
	Medicine ball throw	Measures arm and upper body strength.	Scores influenced by technique.
	Multigym measurements	Measurements can be made on A variety of muscle groups.	Need expensive equipment.
Speed	Start to Finish Digital beams	Easy to administer. Distances can be 10, 25, 50 to 100 Meter.	Accurate enough to reflect any changes in performance

AREA	TESTS	ADVANTAGES	DISADVANTAGES
Flexibility	Sit and reach	Simple measure hamstring and Lower back mobility.	Need to standardise technique.

These various testing formats have been used in Hong Kong for the past few years, however limited time and space availability has meant that HKRFU has concentrated more on the following tests:

- Body Fat – callipers (simple and can be done anywhere (in people’s offices – sometimes necessary due to the working lifestyle of expatriate players).
- Beep Test – Can be used for big groups such as four teams at one time. This is used in HK at the beginning of the season, prior to individual games. Hong Kong has found it particularly useful due to the lack of resources, time & management.
- Strength / power – Jump test (Vertical). Whilst fitness orientated, it introduces an element of fun. Hong Kong also use the number of push-ups undertaken in a minute cycle with a partners fist under the chest as an indicator of fitness levels.
- Speed – we use the latest equipment available.
- Flexibility – this is not a popular exercise within our players. Most players find it difficult and hence it can be detrimental to team moral.

Vertical jump test is a benefit for line out jumpers even despite the fact that fellow players acting as the lifters now assist them.

Speed test – for all players who can benefit from quick breakdowns and finish as this testing covers a lot in the field of play.

Testing benefits the players more than the coaches as it gives them the drive to better their previous performance. It is important that we test at the appropriate times and ensure that these times take into consideration the players training schedules and game plans. Fitness testing should not be undertaken for the coaches’ benefit and convenience.

In Hong Kong, we look at the specific training phases and then target the testing after each phase where possible. We have also investigated the possibility of undertaking medical screening as part of the testing schedule. However further consideration should be given to costs and resources as well as ensuring that the maximum benefit is gained from existing methods before any decision can be made.

Heart rate monitors are available for players use to ensure that they can measure their own training load and share in the responsibility for their own fitness maintenance. In addition to

this, players are grouped through their own playing positions into “buddy” groups where they make contact with each other and arrange to train together and monitor each others progress. This assists the coaches in monitoring the player’s development as records of training and its intensity and frequency need to be maintained.

How is all this testing then related the game?

To be able to compete in the modern game of rugby players have to be extremely fit and able to react quickly to the different situations that will arise during training and playing. Fitness testing provides both the players and the coaches with a method for focusing on the training and ensuring that areas of development are identified. Repeated testing helps ensure that weaknesses are addressed and improvement seen. Players should be able to benefit at game time. Fitness testing also gives the squad the opportunity to concentrate on certain areas and allow a team member to become a well-balanced player.

Testing is undertaken in a way that allows each of the testing assessments to be related to the game in one way or another. This gives the player a positive frame of mind and encourages them to become a better player.

In Summary

Hong Kong recognises the value of fitness training. This is particularly so in an environment where players come from a variety of social backgrounds and are there playing rugby for a wide variety of reasons. In order to be successful HKRFU has recognised that the breath of players available for selection requires a varied approach, both in coaching and fitness training and testing.

In order to achieve the desired results, the coaches of Hong Kong use fitness training to keep the less motivated players away from the ever calling social scene and to ensure that the squad attains the fitness levels required of an international squad. It has always been difficult to ensure that the less serious players do not de-motivate the hard-core element of Hong Kong’s rugby squad. Separate and varied fitness testing have made this possible over the years.