



**The Rugby League
Coach Education Programme**

The Think Coaching E-Link

Issue 14



Welcome to Issue 14 – Speed & Agility

Introduction

In this issue we cover an area of physical preparation that is becoming more and more important within Rugby League. The speed and agility of players at the top level of the game has increased immeasurably over the last few years. This trend looks set to continue with the advent of LTAD and the concentration at the FUNdamentals stage on the ABCs (agility, balance and coordination).

Coach Development News

October and November will see a number of major initiatives regarding coach education.

- October 6th Community Sports Coach Training Day at Hebden Bridge
- October 15th Student Rugby League Representative Coaches Training Day at Hopwood Hall College, Rochdale
- October 22nd, 29th and November 12th Student Rugby League Club Coach Development Days in London, Stafford and Huddersfield
- October 24th to 28th National Coach Development Camp in Sheffield
- November 5th National League, Academy and Scholarship Coaches Conference at Robin Park, Wigan
- November 20th Cumbria Coaches Conference at St Bees, Whitehaven



ARTICLE 1

SPEED & AGILITY

By Frank Ponissi - Assistant Coach Northern Eagles

The evolution of Rugby League throughout the latter part of the twentieth century was characterised by the rise and rise of the influence of mobility. No longer were props the Jurassic plodders of years gone by, while halves and backs found new ways to improve their already impressive footspeed. And so the trend continues into the next millennium. Gaining, covering and defending ground have always been the focus points of Rugby League. However in the game's present climate, those tasks are being completed with unprecedented speed and agility.

This has been reflected in the specialised manner in which quickness - both off the mark and over a sustained period - is being instilled into athletes at the elite level. We have seen many and varied programs for the dissection of strength and skill components, yet previously there was little variety available in the way of speed training. Repetitious sprints and endurance work were the flavour of a generation that has now passed its use-by-date. Now there are a vast array of drills and activities, that when fully utilised, can deliver both individualised and entertaining mobility training.

Working towards the three desired components of speed, agility and quickness, segmented exercises have been developed to cater for the differing positional roles. All workouts are calculated in relation to the work needs of that particular role within the team. For a forward, that usually mean short bursts of explosive power running. For a half, the activities will usually relate to maintaining nimble and agile feet and for the outside backs, exercises tend to pertain to maximal velocity sprints.

As follows is a session designed to heighten the relevant qualities desired of each position within a Rugby League team. This is not a definitive guide and many of the activities can transpose from one training group to the next. But it does form an accurate guide to the areas in which coaches and conditioners should direct their focus for individualised programs.

(All sessions 7-10 minutes in length)

PROPS/BACKROWERS

• Footwork Ladders

A series of plastic strips arranged on the ground somewhat similar to a ladder. The purpose of the activity is to step between each 'rung' with both feet as quickly as possible until reaching the end. Variations on this activity include tippy-toeing sideways through each 'rung' or stepping left through one 'rung' and right through the next continually.

• Medicine Ball Throws

With a variety of differently weighted medicine balls, form players into groups of two. The first player throws the ball in the air underarm with both arms, while the second starts in a three-point crouch and sprints after the ball when it first bounces, aiming to reach it before it stops rolling. Players are to alternate after each throw. Variations available include throwing the ball from a squat or from an overhead position.

• Sled Weights

By stacking weights on a sled attached to the player by a rope and belt, we can emphasise the high leg pump and inclined stance expected of forwards in the ruck area. Distances for the players to sprint with the weighted sled vary according to the mass involved.

One example of a testing set would be 10 metres with an 80 kilogram sled, followed by 20m (60kg), then 30m (40kg) and finishing with 40m (20kg).

• Retreats

Lying face down in the opposite direction to the tryline, players must regain their feet, turn, run to the try line and adjust left or right according to the coach's call. Players then sprint forward from

their adjusted mark back past their original position and join the end of the line until it is their turn again. This hones the ability of the forwards to recover from making a tackle, returning to an onside position, shifting laterally and then advancing towards the attackers again.

- **Shuttle**

A basic back-and-forwards session involving a selection of different distances. Players run the nominated distance, turn and run back the same distance the specified number of repetitions. One example would be two sets of 5 x 60 metres, followed by two sets of 5 by 40 metres and then two sets of 5 x 2m. Players receive their rest period by walking back to the starting point of the next set from the finishing point of their last set. The recovery rate is based on a 2:1 ratio of time spent active: time recovering.

HOOKER/HALVES

- **Breakaway Belts**

In pairs, players wear a belt with a rope joining one another via a velcro strip. The idea is for the nominated prey to try and escape the predator by running away from them, tensing the belt once they establish a large enough gap and eventually breaking the velcro free.

The predator aims to stay as close as possible to the prey and closely watch the evasive techniques used by their opposite. Players swap roles after a specified time. This activity can be turned into a competition by scoring a point each time the prey breaks free from the predator.

- **Footwork Ladders**

Similar in style to the footwork ladder activity used by the forwards, the halves also combine agility poles to their program. Using a footwork ladder to start with, the players tippy-toe through the 'rungs', then turn and zig-zag through a number of agility poles before completing another ladder to finish with.

CENTRES/WINGERS

- **Flying 30s**

Simply a series of 30 metres jogs that gradually increase in intensity towards the finish line. The concepts being promoted are acceleration and rhythm

- **Maximal Velocity Sprints**

Top speed sprints over 20, 40, 60, 80 and 100 metres. The number of repetitions of each distance is up to the discretion of the coach. Recovery time for the next sprint is used by walking back to the starting mark. Distances can be arranged in ascending, descending or wave patterns.

- **Swerves and Scoots**

As per the activities for hookers and halves.

- **Parachute release**

Accentuating acceleration and resistance running, the parachute run is completed in much the same manner as for hookers/halves. However the backs are allowed to release the parachute halfway through their nominated distance and sprint the remainder unhindered.

SKILLS BREAKDOWN

Since 1908 the skills of Rugby League have remained fairly much the same to their present form. However, the methods and techniques we use to teach them have varied according to changes in the climate of the game and the direction given by rule applications. Importantly, the purpose of skills training should always focus on the skill being taught, not the drill. To recreate the best environment in which to conduct these training sessions, we find skill-based games under fatigue work best. The key is to simulating game conditions as close as you can.

Even within the last half-decade, skills training has changed dramatically. Now skills are taught in unprecedented detail under a series of complex simulations. No longer are skills taught as a general component along with fitness and psychological factors - they are specialised and categorised to a point where the various skills becomes training components on their own. As is illustrated by the graphic below, skills can now be broken down to warm up skills, core skills and individual and team skills. When taught either in succession or independently from each other, these varying types of skill now have a focus all of their own.

Training Speed, Agility Strength and Power

By Ashley Jones – Strength and Conditioning Coach

Ashley Jones has travelled a career path that has taken him on a journey via Newcastle and Parramatta, eventually leading to the Northern Eagles. Just like his career path he believes an eclectic multi facet approach to training is important.

In Jones' book, the basics are the essentials. If you cover all your bases and 'don't shirk the work', then the season should be fine sailing. Whatever you put into the tank prior to Christmas you draw on in September.

A typical week for the Eagles resembles something like this:

First day after recovery: Maximal velocity session incorporating game conditioning exercises and, drills incorporating agility.

Second day: Functional athletic strength training session looking at total body strength and power.

Third day: Extras or rest. The extras sessions are for those with below par fitness or for players seeking specialised training for a particular area such as tackling or kicking.

Fourth day: Short sharp speed session after skills.

Obviously, for non-professional outfits in suburbia and rural regions, such a program would be impractical.

However Jones says teams with limited time together can condense the five major elements - speed, power, agility, ball work and endurance - into their desired number of sessions through the use of **modified games**.

The underlying theme is that when compacting the various elements, the full spectrum of skills should be maintained. And within each of those skills, a full array of components must be covered. For instance, a gym session would only cover one fifth of the week's training, but that session in itself should be as comprehensive as possible. The logic is to balance out all the individual capabilities into one overall complete package. An example of an overall workout could be - three leg exercises (one Olympic movement, one squat and one hamstring exercise), one lower back activity, two upper body pulling exercises, one upper body pushing exercise, grip work, and abdominals. Even then, within each activity it can be broken down further. Leg squats alone can be performed by explosive Olympic squats, back squat, front squat and/or one-legged squat, just to name a few.

"Basically I believe that what ever you don't use, you lose," Jones states. "When you get in the gym - or even out on the track - you should be looking to cover everything; move through all the movements. Maintaining overall strength and fitness is the key, not just concentrating on one area until it is super special".

When it comes to testing the fitness level of players, Jones is again a fan of sticking to the basics. His simple endurance test is a 2.4 kilometre course, with timed goals for each player with the beep test during the season more specific because of the shuttle nature of the test. However, for more specific information he recommends timing players over a variety of distances such as 100 metres, 400m and one kilometre in order to judge each energy system relationship.

“This enables you to judge the metres covered per second or velocity(distance divided by time). Some players may register very low speeds over the shorter distance, but be able to maintain fairly high velocity over the longer target, or vice-versa. This then allows you to target a specific element of their running that needs improvement”.

“In terms of power output, most players these days can claim to bench press in excess of 140kg. Many can go higher than 180kg. Other tests such as power clean and squat will reveal similarly startling figures. But to set a standard weight target that is applied across the board would be fraught with folly”, says Jones. “Fitness tests are like everything else in your training regime, they should be open to variation and be positional specific,” Jones warns.

“Setting generic tests and goals that are cast in stone is of no value to anybody. A veteran player who has been battered and thrown around won’t be able to perform at the same level as most of your squad. It is a fact of life that his impairment will stop him from reaching that target. Similarly another player might not push himself to his fullest capacity if the generic goal is too low. This is a reason I’m a fan of Billy Johnstone’s ideas of putting players into various training groups particularly in the off season”.

“In the weights room, your middle men should be concentrating on strength in the area surrounding the torso, e.g. bench and power clean. The outside men, on the other hand, should be focusing on strength above their shoulders for things like catching high balls, e.g. push press and power snatch. Squats are a given for both groups. In essence, fitness tests should cater for the needs of the individual and take outside factors into consideration.”

Another hugely important test for a game such as Rugby League is calculating a player’s maximum momentum. Momentum (velocity multiplied by mass) is the single greatest factor at the point of impact with the defensive line. Calculating this figure is imperative to the overall fitness regime of the player. A small, quick winger who increases his weight may well lose speed as a result. But when is the point to tell them to stop adding mass? It is when their momentum starts to decrease.

If a player who originally weighs 90kg and runs 9.2 metres/second bulks up by 5kg, it may do them more harm than good. Say they now run at only 8.62 metre/second. Then their momentum, and therefore impact, has decreased.

An integral part of applying that momentum is in reference to what Phil Gould labels as the player’s ‘work space’. While maximising the momentum of a player, it is also of benefit to think about their environment on the paddock. “A lot of training nowadays is in reference to ‘pattern running’,” he says.

“By ‘pattern’, I mean running within specific areas, with specific speed and skill objectives. It is based on the characteristics of the individual positions and, as a conditioner, it allows you to more effectively cater for the player’s on-field needs. A prop needs a more explosive, straight running style, while a back should be able to maintain speed over a set distance and have the ability to run around objects quickly. The concept isn’t really new to Rugby League, but it is becoming more specified as we learn more and more from sports like the NFL.

“Running styles can be adapted also. An activity like pulling weights on a sled performs two functions. Not only does it give the player a specific strength workout, run in an inclined position. You don’t want your players to run upright because they’ll get smashed and driven back. When you do an activity like sleds, you should vary the weight used over different distances, we sometimes work up to 80% of a players body mass. Other non-football sports only use around 5-10 per cent of the athlete’s mass, because they want to maintain upright running and not alter running technique.”

Jones is not a great believer in periodisation techniques. For a competition such as the NRL, it is almost impossible to develop a team charter. With a squad of 25-35 players to consider, it would be a miracle to have all team members primed at the same level consistently throughout an entire season.

Essentially, periodisation works best for individual sportspeople aiming towards a clear goal such as the Olympics. But the week-to-week contest of League and the physical battering players take inevitably throws any set plans out of whack.

However the experienced conditioner says there are some merits to period planning, and at the Eagles he incorporates a 'three up, one down' system. For three weeks of a month the team is in the loading phase of their fitness cycle, building and bettering their physical capabilities. But on the fourth week the team trains lighter than usual to give their bodies time to refresh.

It is much the same theory as when a crop field is left to fallow. Another area where prior planning can be a bonus is in the department of rest and recovery. Although Australia still trails British soccer in the practice of rotating squad members (regardless of injury) to give each player a guaranteed rest, recovery remains a crucial factor in the NRL title race. The onset of rationalisation and subsequent intensity of matches means correctly balancing the health of a squad will be even more valuable than in the past.

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Have the issues raised in these articles been of any use to you?
Would you like to see further articles on the subject?

Drop us a line at haydn.walker@rfl.uk.com

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