# Physical Education 2019 v1.2

IA3 high-level annotated sample response

November 2020

## Project — folio (30%)

This sample has been compiled by the QCAA to assist and support teachers to match evidence in student responses to the characteristics described in the instrument-specific marking guide (ISMG).

### Assessment objectives

This assessment instrument is used to determine student achievement in the following objectives:

- 1. recognise and explain energy, fitness and training, and body and movement concepts and principles about specialised movement sequences and movement strategies
- 2. demonstrate specialised movement sequences and movement strategies in authentic performance environments
- 3. apply concepts to specialised movement sequences and movement strategies in authentic performance environments
- 4. analyse and synthesise data to devise a training strategy for optimising performance of the specialised movement sequences and one movement strategy
- 5. evaluate a training strategy and movement strategies relevant to the selected physical activity
- 6. justify a training strategy and movement strategies relevant to the selected physical activity
- 7. make decisions about and use language, conventions and mode-appropriate features to communicate information about strategies to a technical audience





# Instrument-specific marking guide (ISMG)

## **Criterion: Explaining**

### **Assessment objective**

1. recognise and explain energy, fitness and training concepts and principles about specialised movement sequences and movement strategies

The student work has the following characteristics:	Marks
<ul> <li>accurate recognition and discerning explanation of         <ul> <li>energy systems, fitness components, training principles, training methods and the competition phase of training relevant to specialised movement sequences and one movement strategy</li> <li>two body and movement concepts, including quality of movement and one other, about the specialised movement sequences and movement strategies.</li> </ul> </li> </ul>	<u>3</u> –4
<ul> <li>recognition and appropriate explanation of aspects of         <ul> <li>energy systems, fitness components, training principles, training methods and the competition phase of training relevant to specialised movement sequences and one movement strategy</li> <li>quality of movement or one other body and movement concept, about specialised movement sequences and movement strategies.</li> </ul> </li> </ul>	1–2
does not satisfy any of the descriptors above.	0

# **Criterion: Demonstrating and applying**

### **Assessment objectives**

- 2. demonstrate specialised movement sequences and movement strategies in authentic performance environments
- 3. apply concepts to specialised movement sequences and movement strategies in authentic performance environments

The student work has the following characteristics:		
<ul> <li>accomplished and proficient demonstration of the specialised movement sequences and two movement strategies in authentic performance environments</li> <li>accomplished and proficient application of the body and movement concepts, including quality of movement and one other, to the specialised movement sequences and two movement strategies in authentic performance environments.</li> </ul>	9– <mark>10</mark>	
<ul> <li>effective demonstration of the specialised movement sequences and two movement strategies in authentic performance environments</li> <li>effective application of the body and movement concepts, including quality of movement and one other, to the specialised movement sequences and two movement strategies in authentic performance environments.</li> </ul>	7–8	
<ul> <li>competent demonstration of the specialised movement sequences and two movement strategies in authentic performance environments</li> <li>competent application of the body and movement concepts, including quality of movement and one other, to the specialised movement sequences and two movement strategies in authentic performance environments.</li> </ul>	5–6	
<ul> <li>variable or inaccurate demonstration of some specialised movement sequences and a movement strategy in authentic performance environments</li> <li>variable or inaccurate application of the body and movement concepts, including quality of movement and one other, to some specialised movement sequences and a movement strategy in authentic performance environments.</li> </ul>	3–4	
<ul> <li>variable or inaccurate demonstration of isolated specialised movement sequences or a movement strategy in authentic performance environments</li> <li>variable or inaccurate application of a body and movement concept in a specialised movement sequence or a movement strategy in authentic performance environments.</li> </ul>	1–2	
does not satisfy any of the descriptors above.	0	

# **Criterion: Analysing**

### Assessment objective

4. analyse and synthesise data to devise a training strategy for optimising performance of the specialised movement sequences and one movement strategy

The student work has the following characteristics:	Marks
<ul> <li>insightful analysis and discerning synthesis of relevant primary data and secondary data to</li> <li>ascertain the most significant relationships between the</li> <li>demands of the specialised movement sequences and one movement strategy</li> <li>relevant energy systems and fitness components</li> <li>personal performance of the specialised movement sequences and one movement strategy</li> <li>devise a personal training strategy to optimise performance of the specialised movement strategy.</li> </ul>	4–5
<ul> <li>appropriate analysis and synthesis of relevant primary data or secondary data to         <ul> <li>ascertain relationships between the</li> <li>demands of the specialised movement sequences and one movement strategy</li> <li>relevant energy systems or fitness components</li> <li>personal performance of the specialised movement sequences and one movement strategy</li> <li>devise a personal training strategy to optimise performance of the specialised movement sequences and one movement sequences and one movement</li> </ul> </li> </ul>	2– <mark>3</mark>
<ul> <li>superficial analysis and synthesis of primary data or secondary data to identify a relationship between the physical activity and energy, fitness and training.</li> </ul>	1
does not satisfy any of the descriptors above.	0

# Criterion: Evaluating and justifying

### **Assessment objectives**

- 5. evaluate a training strategy and movement strategies relevant to the selected physical activity
- 6. justify a training strategy and movement strategies relevant to the selected physical activity

The student work has the following characteristics:	Marks
<ul> <li>critical evaluation of the effectiveness of         <ul> <li>personal performance of the specialised movement sequences and two movement strategies by applying two body and movement concepts, including quality of movement and one other, to appraise the outcome, implications and limitations</li> <li>the training strategy using selected principles of training to appraise the outcome, implications and limitations of the selected training methods, energy systems and fitness components</li> </ul> </li> <li>discerning justification of the development, modification and maintenance of the training strategy and movement strategies to optimise personal performance, using evidence from primary data and secondary data.</li> </ul>	7–8
<ul> <li>considered evaluation of the effectiveness of         <ul> <li>personal performance of the specialised movement sequences and two movement strategies by applying two body and movement concepts, including quality of movement and one other, to appraise the outcome, implications and limitations</li> <li>the training strategy using selected principles of training to appraise the outcome, implications and limitations of the selected training methods, energy systems and fitness components</li> </ul> </li> <li>considered justification of the development, modification and maintenance of the training strategy and movement strategies to optimise personal performance, using evidence from primary data and secondary data.</li> </ul>	5– <u>6</u>
<ul> <li>feasible evaluation of the effectiveness of <ul> <li>personal performance of some specialised movement sequences and two movement strategies by applying two body and movement concepts, including quality of movement and one other, to appraise the outcome, implications or limitations</li> <li>the training strategy using selected principles of training to appraise the outcome, implications or limitations of a selected training method, energy system or fitness components</li> </ul> </li> <li>feasible justification of the development, modification or maintenance of aspects of the training strategy and movement strategies to optimise personal performance, using evidence from primary data or secondary data.</li> </ul>	3–4
<ul> <li>superficial evaluation of the effectiveness of aspects of the training strategy or a movement strategy by describing the outcome or an implication or limitation</li> <li>superficial justification of aspects of the training strategy or a movement strategy.</li> </ul>	1–2
<ul> <li>does not satisfy any of the descriptors above.</li> </ul>	0

## **Criterion: Communicating**

### **Assessment objective**

7. make decisions about and use language, conventions and mode-appropriate features to communicate information about strategies to a technical audience

The student work has the following characteristics:	Marks
<ul> <li>discerning decision-making about and accurate use of         <ul> <li>written or spoken and visual features to achieve a particular purpose</li> <li>language suitable for a technical audience</li> <li>referencing and folio genre conventions.</li> </ul> </li> </ul>	<u>3</u>
<ul> <li>appropriate decision-making about and use of         <ul> <li>written or spoken and visual features to achieve a particular purpose</li> <li>language suitable for a technical audience</li> <li>referencing and folio genre conventions.</li> </ul> </li> </ul>	2
<ul> <li>variable and/or inappropriate use of</li> <li>written, spoken or visual features</li> <li>language</li> <li>referencing or folio genre conventions.</li> </ul>	1
does not satisfy any of the descriptors above.	0

# Task

### Context

In this unit, you have engaged in integrated learning experiences about energy, fitness, training and the application of body and movement concepts in authentic touch football environments. To optimise your personal performance in touch football, you have explored energy systems, components of fitness, principles of training, training methods and training phases.

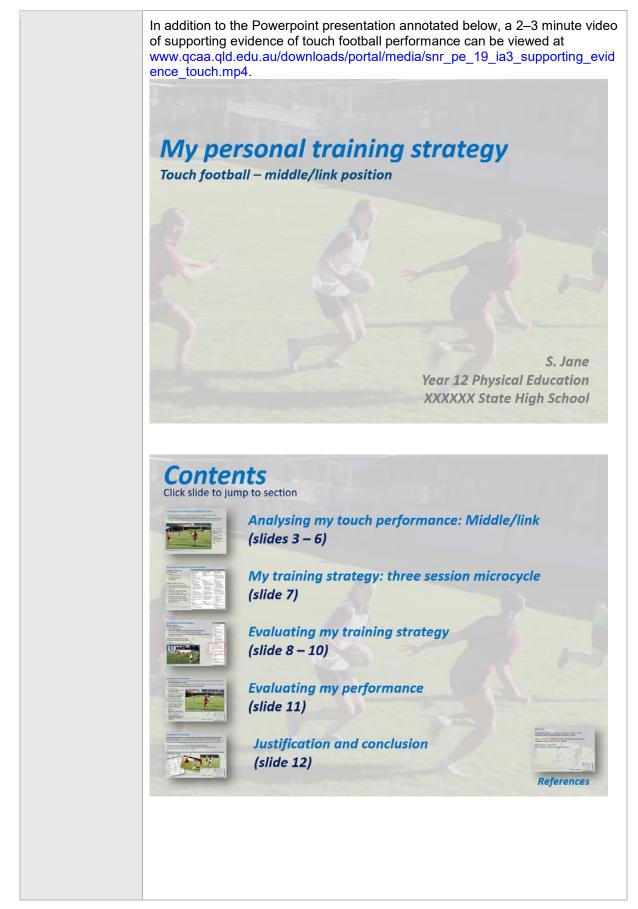
### Task

Devise one personal competition-phase training strategy for a three-session microcycle. The strategy should optimise performance of one movement strategy from one principle of play, in either the middle, link or wing position. Evaluate the effectiveness of the devised training strategy and your personal performance in the selected touch football position.

# Sample response

Criterion	Marks allocated	Result
<b>Explaining</b> Assessment objective 1	4	3
<b>Demonstrating and applying</b> Assessment objectives 2 and 3	10	10
Analysing Assessment objective 4	5	3
<b>Evaluating and justifying</b> Assessment objectives 5 and 6	8	6
Communicating Assessment objective 7	3	3
Total	30	25

The annotations show the match to the instrument-specific marking guide (ISMG) performancelevel descriptors.



### Analysing my touch performance: Middle/link position

- Typically, in a touch game, I will play between 3 and 5 minutes on the field before subbing.
- work at maximum intensity for moderate durations up to 5 minutes
- maximum intensity efforts or sprints as a middle or link, typically last between 5 and 20 seconds.
- the typical duration of a high intensity sprint in my performance was approximately 5 seconds.



Overall, for this passage of play, I worked at varying intensity for approximately 3 minutes of gameplay before subbing off for a few minutes of rest.

### Analysing my touch performance: Middle/link position

My movement analysis used to gather data on duration and intensity illustrates that I typically play three to five minutes between substitutions. My analysis also identifies that my work to rest ratio between time on the field and time in the subbing box is approximately 1:1. According to the data, maximum intensity efforts or sprints as a middle or link, which is where I typically play, last 5 to 20 seconds. This differs from the role of a wing who will often get longer periods of rest between durations of work. The movement performance analysis conducted when reviewing video footage of my performance shows that the typical duration of a high intensity sprint in my performance was approximately five seconds. It was evident that only one sprint in this passage of play was shorter and one sprint was approximately 10 seconds. Overall, for this passage of play, I worked at moderate-to-high intensity with short intervals of recovery for approximately three minutes of gameplay before subbing off for a similar duration.





insightful analysis and discerning synthesis of relevant primary data and secondary data to ascertain the most significant relationships between the

<u>relevant energy</u>
 <u>systems and fitness</u>
 <u>components</u>

The intensity section of the movement performance analysis clearly demonstrates that at least half of my movements performed during this three minutes were approximately 75% intensity or higher. From the data gathered on my performance, it is evident that the fitness components of speed and agility are used extensively throughout the performance. The data on duration and intensity strongly suggests that the lactic acid energy system and, to a lesser extent, the aerobic energy system are critical to my performance.

### Analysing my touch performance: Middle/link position

Developing the lactic acid system and the aerobic system for optimising performance as a middle/link in touch football



### Explaining [3–4]

accurate recognition and discerning explanation of

 energy systems relevant to specialised movement sequences and one movement strategy Developing the lactic acid system through training will help me perform at maximum intensity for these shorter durations, which are typical of my performance as a middle or link, both defending and attacking. This also means that I can use subbing time to recover before performing at high intensity again. The aerobic energy system will provide me with the energy I need to perform for the duration of a touch football game, which typically lasts 40 minutes. A well-developed aerobic energy system also aids quick recovery while subbed so that I can repeat high intensity sections of play.



### Explaining [3-4]

accurate recognition and discerning explanation of

 fitness components relevant to specialised movement sequences and one movement strategy

There are several fitness components that are important for optimising my performance as a middle or link in touch football. When setting up attack, I use speed, power and agility, primarily to ruck, run switches and wraps, dump and split, and hitting holes in the defensive line. Being able to change direction and change speed rapidly, in response to the movements of my team mates and the opposition, is one of the most important fitness components in touch football. Agility is improved when speed and power are improved. Changing direction quickly requires explosive, intense muscular movements which can be improved by training my power. The video here demonstrates where agility is important to my performance.

### My training strategy: three-session microcycle

Designed to optimise my performance in:

- rucking
- attacking the line
- setting up attack as a middle/link

Training strategy focuses on:

- sprint training, incorporating some agility work in response to stimulus
- resistance training with high resistance and low reps, specifically designed to target muscular power in my legs,
- circuit fitness training session targeting lactic acid and aerobic energy systems.

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Session 1	Session 2	Session 3
Monday — period 1 Sprint/agility training	Wednesday — period 3 Resistance training	Friday — period 2 Circuit training (HIIT)
Objective • increase speed • increase agility in response to stimulus • target lactic acid system (durations of 5-20 seconds)	Objective • increase power (low reps, high resistance)	Objective • target lactic acid system (durations of 5-20 seconds) • target aerobic energy system (extended durations of work)
Warm-up           2 x slow (50 – 60%) laps around a loukh field           - 10 wor body stretches focusing on harmstrings, calves, glucks, quads           - shoulder and arm stretches           - moderal sprints (75%) across the louch field passing the bouch bail           Conditioning phase           - 5 x 50m sied sprints (90%) intensity) with valk-back recovery           - 2 x (3 sets of pileh (egs?) (100%, intensity) with x-1: work/rest ratio           - appendix y and sprints with "scoop from hair"           - repeat           Cool-down           - slow jog around the touch field (50%)           - slow jog around the touch field (50%)	Warm-up           5 minutes – exercise bike (60% intensity)           Dynamic flexibility training           Dynamic muning drills (high knees, cross-overs, fast feet, efc.)           - lower body stretches focusing on hamstrings, calves, glutes, quads           - shoulder and arm stretches           Conditioning phase           6 % 10m repeated jump squats with a skg weight plate or medicine ball – walk back recovery           6 % 5 Calif raises (20kg bar)           6 % 3 leg press (40kg)           Cooldown           5 minutes – treadmil (slow jog)           nexibility training – lower body and leg stretches	Warm-up 2 x slaw (50 – 60%) laps around a buch field I existility training – lower body stetches rocusing on harmstrings, calves, gludy, stetches i to minute game of 3v3 touch Conditioning phase Circut (high intensity – 95%) Round 1: 20 second stations Round 2: 30 second stations Round 3: 60 second stations Round 3: 60 second stations Round 3: 60 second stations I agility ladder - fast feet 2. burpees 1. agility ladder - fast feet 2. burpees 1. agility ladder side steps 5. mountai climbers 6. box jumps 7. agily pole sprints (varied) Coslow jog around the touch field (50%)
		<ul> <li>lower body and leg stretches</li> </ul>

### My training strategy: three-session microcycle

Based on the analysis of my performance as a middle/link in touch football, I have decided to devise three training sessions specifically designed to optimise my performance in rucking and attacking the line as a middle in touch football, as well as defending against the opposing line attack. This training strategy was guite

### Analysing [2-3]

appropriate analysis and synthesis of relevant primary data <u>or secondary data to</u>

- ascertain <u>relationships</u> between the demands of the specialised movement sequences and one movement strategy
- devise a personal training strategy to optimise performance of the specialised movement sequences and one movement strategy

Explaining [1–2]

### recognition and appropriate explanation of aspects of

 the competition phase of training relevant to specialised movement sequences and one movement strategy

### Evaluating and justifying [5-6] considered evaluation

of the effectiveness of

• the training strategy using selected principles of training to appraise the <u>outcome,</u> implications and limitations of the selected training methods, energy systems and fitness components

## Explaining [1–2]

recognition and appropriate explanation of aspects of

 training methods relevant to specialised movement sequences and one movement strategy

### Explaining [3–4]

accurate recognition and discerning explanation of

 training principles relevant to specialised movement sequences and one movement strategy

effective in targeting speed and agility throughout sprint training, incorporating elements of agility work in response to stimulus. The training strategy also includes resistance training, which was very good at improving muscular power in my legs, and a circuit fitness session that combined important muscle groups and targeted the lactic acid and aerobic energy systems. These three sessions make up a microcycle to be completed during the competition phase of my training.

Session 1

Warm-up 2 x slow (50 – 60%) laps around a touch field
 flexibility training

recovery

repeat

Monday — period 1 Sprint/agility training

Objective • increase speed • increase agility in response to etimulue

target lactic acid system (durations of 5-20 second)

Texobility training
 lower body stretches focusing on hamstrings, calves, glutes, quads
 shoulder and arm stretches
 moderate sprints (75%) acros

intensity) with 30 seconds rest

Agility grid sprints with 'scoop from half'

slow jog around the touch fie (50%) flexibility training
 – lower body and leg streto

### Evaluating my training strategy Monday's session

interval training to focus on:

- sprinting and agility
- · mirrors the durations and intensity of my touch performance.
- work and rest at the same intervals I would in a game.
- progressive overload add more repetitions, reduce rest or increase duration and/or intensity

### drills that increase speed and agility:

- parachute sprints and sled sprints
- variety

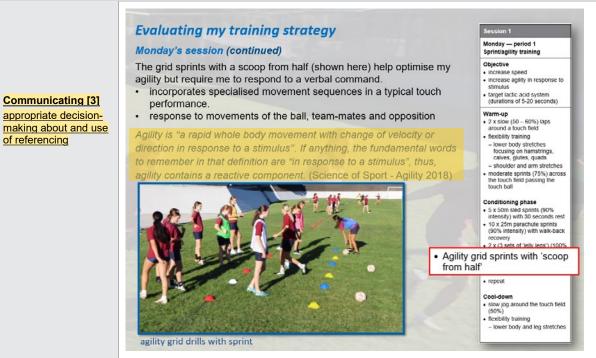
.

Conditioning phase jelly legs drill (shown here) adds specificity 5 x 50m sled sprints (90%) 10 x 25m parachute sprints (90% intensity) with walk-back 2 x (3 sets of 'jelly legs') (100% intensity) with 1:1 work/rest ratio 'ielly leg' drills

### Evaluating my training strategy

The outcomes and implications for Monday's session on sprint and agility training will focus specifically on optimising my performance when setting up attack, as it uses interval training to not only focus on sprinting and agility but also to closely mirror the durations and intensity of my typical touch performance. The interval training was particularly effective as a training method in this case, as it enabled me to work and rest at the same intervals I would in a game, increasing specificity and focusing on the right energy systems. In addition to this, interval training can easily incorporate progressive overload because as I improve my lactic acid energy system, I can add more repetitions, reduce the amount of rest or increase the duration and/or intensity of the work intervals. A few minor limitations of my training strategy are that it doesn't target other fitness components that could be helpful to my performance including hand-eye coordination and muscular endurance. It also doesn't incorporate any continuous training that could be helpful in helping my aerobic system develop further.

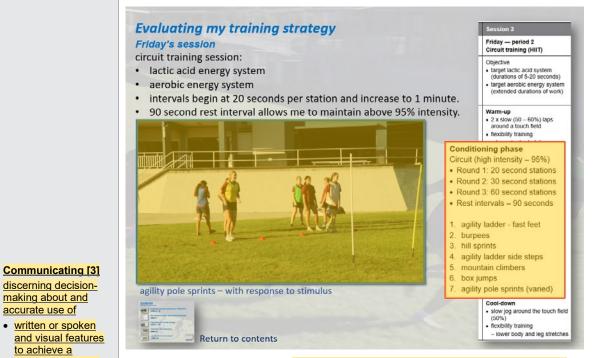
This session uses a number of drills that increase speed and agility. The parachute sprints and sled sprints provide light resistance and use a distance that would be typical of a sprint in touch football. They also add some variety to my training which keeps me motivated and interested. The jelly legs drill (shown here) is a good way of adding specificity to my training of the lactic acid energy system. The work to rest ratio of 1:1 allows me to work at maximum intensity for 15 seconds and then recover before repeating. It also adds specificity as it reflects the typical movements of a touch player in defence. Players must move forward to make a touch and then 'back-peddle' to the 5-metre line before repeating for a full set of six touches.



I've also added some agility drills in this session that incorporate a response to stimulus.

The grid sprints with a scoop from half (shown here) help optimise my agility but require me to respond to a verbal command. My coach, or team-mate calls out a combination of colours. In response to this, I have to move to each of the colours in order of the command before sprinting to scoop the ball and sprint 10-15 metres ahead of the grid. Again, this also incorporates specialised movement sequences in a typical touch performance. Sudden changes in speed and direction when attacking or defending as a middle are always in response to the movements of the ball, team-mates and opposition, making this the best way to train agility. Session 3 (circuit training) also incorporates some agility training using response to stimulus. I've deliberately included this along with some basic agility ladder work in my circuit training session to target my footwork and more specifically, my agility while performing at high intensities.

of referencing



The circuit training session is specifically designed to target both the lactic acid energy system and the aerobic energy system. Work intervals begin at 20 seconds per station and increase to one minute per station. Each station has a 90 second rest interval to allow me to maintain above 95% intensity when performing each station.

### **Evaluating my performance**

- accuracy and speed in movements when performing wraps, switches, splits, scooping from half, play-the-balls and passing.
- space awareness to my performance as I am able to change the direction of my movements in response to the position of defence and my team mates.

### setting up attack

- rucking the ball in order to gain field position.
- combination of wraps and switches to create space on the line to optimise scoring opportunities. Defending against attack
- move back to the 5m line as quickly as possible in order to move up in line with my defence and minimise gaps in our
- defence. get back on side early in order to shoot or rush up on the attacker to minimise the ground they make when rucking or attacking.



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### Explaining [3–4]

accurate recognition and discerning explanation of aspects of

 two body and movement concepts, including quality of movement and one other. about the specialised movement sequences and

### Evaluating my performance

Quality of the movement is a concept that refers to a range of gualities demonstrated in a performance. In my touch performance I am able to apply many of these concepts when performing a range of skills or movement sequences. As you can see in the video, I demonstrate accuracy and speed in movements when performing wraps, switches, splits, scooping from half, play-the-balls and passing. I also apply space awareness to my performance proficiently, as I am able to change the direction of my movements in response to the position of defence and my team mates. This is particularly helpful for running at holes in the defence [or] creating

### language suitable for a technical audience

to achieve a particular purpose

accurate use of

genre conventions

### movement strategies

between the

### gaps for scoring.

Analysing [2–3] appropriate analysis and synthesis of relevant primary data or secondary data to ascertain relationships

personal
 performance of the
 specialised
 movement
 sequences and one
 movement strategy

### Evaluating and justifying [7–8] critical evaluation of

the effectiveness of

 personal performance of the <u>specialised</u> <u>movement</u> sequences and two movement strategies by applying two body and movement concepts, including quality of movement and one other, to appraise the outcome, implications and limitations

### Evaluating and justifying [5–6]

considered justification of the development, modification and maintenance of the training strategy and movement strategies to optimise personal performance, using evidence from primary data and secondary data The outcomes of my attacking movement strategies often include opportunities to attack the line or score tries. In the position of middle, you can see that I am often involved in rucking the ball in order to gain field position. When attacking the line, I am accomplished at using a combination of wraps and switches to create space on the line to optimise scoring opportunities. When defending, I move back to the 5-metre line as quickly as possible in order to move up in line with my defence and minimise gaps in our defence. When making a touch, I apply body awareness by touching the opposition player on the shoulder and positioning my body in order to move back on an angle in response to the direction of the attack. This allows my defence to slide across the field and minimise gaps. When defending in the middle of the field, I often get back on side early in order to shoot or rush up on the attacker to minimise the ground they make when rucking or attacking.

### Justification and conclusion

I've *developed* a strategy that targets the fitness components of agility, speed and power as from the video shown <u>previously</u>, the majority of my movements as a middle require rapid changes of direction and explosive bursts of speed to create or exploit gaps in the defence. I've also deliberately targeted important energy systems, essential to my role in touch football.

I would recommend *maintaining* this training for at least 6-8 weeks. "The minimum duration of any fitness program to develop training effects is 6 weeks." (Amezdroz, Dickens, Hosford, Stewart, Davis 2010)

I would make further *modifications* to my training sessions by employing the training principle of progressive overload.



### Justification of my training strategy

Overall, the three sessions I've developed to optimise my performance as a middle/link when rucking and attacking the line in touch, is an effective strategy and will definitely help me improve my performance. I've deliberately targeted the fitness components of agility, speed and power as from the video shown here, the majority of my movements as a middle require rapid changes of direction and explosive bursts of speed to create or exploit gaps in the defence. I've also deliberately targeted important energy systems, that were evident in my performance from the data gathered from my video. The analysis of my duration and intensity in my touch performance shows that high intensity work durations match those in my training program for the sprint training and the circuit training sessions I've developed. In order for this training strategy to continue to optimise my performance in touch, I would need to maintain this training over a significant time period to be successful. I would recommend maintaining this training for at least six to eight weeks.

Across this extended duration of six to eight weeks <u>I would make further</u> modifications to my training sessions by employing the training principle of progressive overload. The sprint training, resistance training and circuit training sessions can all be easily modified to increase the intensity as training effects begin to take place. Progressive overload ensures that [as] I train and improve, I can continue to modify sessions in response to my fitness improvements.

