C Section

C1- Passing

Lack of Aerobic Fitness

Throughout the duration of a rugby match I can make quite a few passes. As a result of this and the other aspects of the game, my technique can begin to fade as my body fatigues in the later stages of a match.

My body fatigues as a result of low levels of oxygen consumption, which is required for the range of muscles used in passing. The lack of oxygen will have a negative effect on my passing technique, as I am unable to get in the correct preparation position quickly enough or complete the action efficiently and with precision. This can lead to an off target pass or not passing quickly enough therefore spoiling an opportunity.

My muscles will require more ATP in the short sharp action of passing, meaning that more ATP must be resynthesized in reaction to this. Therefore more glucose is broken down through the process of glycolysis, forming pyruvate. This joins with coenzyme A to create Acetyl coenzyme A. This leads in to the Krebs cycle, where hydrogen is produced. This then leads in to the Electron transport chain where oxygen re-joins with hydrogen. There is excess hydrogen when there is not enough oxygen present, which is as a result of poor V02 max. This excess hydrogen combines with pyruvate as it is a bi-product of glycolysis. The combination of hydrogen and pyruvate forms lactic acid. This leads to fatiguing, as result of acidosis (build-up of lactic acid). As this occurs it becomes increasingly difficult to perform a pass as effectively as I would have at the start of a match. It leads to a drop in my technique, and not getting my hands up as a target for the player passing to me. This can lead to the pass I receive being off target. Once more due to my fatiguing I do not get my passing elbow high enough to perform a flat pass which either sends the ball too high or too low to the receiver, giving them an awkward pass to receive. This slows down the pace of play or a move if being performed, and in the worse scenario could lead to the opposition regaining possession.

C2- Altitude Training

[](http://www.google.co.uk/imgres?q=altitude+training&um=1&biw=1280&bih=908&hl=en&tbm=isch&tbnid=92oqt3aTAw-pQM:&imgrefurl=http://www.centreforknowledgetransfer.co.uk/case-studies/altitude-centre/&docid=rTDHncVJPm6QiM&imgurl=http://dus4hzcku6pkm.cloudfront.net/images/12-2471-altitude-banner.jpg&w=470&h=470&ei=y1R-UeWEFoKr7AbrpYG4Cw&zoom=1&ved=1t:3588,r:10,s:0,i:130&iact=rc&dur=171&page=1&tbnh=177&tbnw=219&start=0&ndsp=22&tx=131&ty=123)To prevent my passing technique from failing as I tire throughout a match, I have chosen altitude training as it enhances aerobic fitness as the body is forced to adapt to receiving lower levels of oxygen.

The main problem with my pass is I am unable to maintain the high speed required in the passing motion during the later stages of a game. This is down to a lack in aerobic fitness. To combat this however, I do not wish to do too much distance running as I don’t want it to affect the muscle fibres in my legs, as I do not want any of my type II B muscle fibres transforming into type II A fibres. The corrective measure I have chosen, in view of these factors, is altitude training.

Altitude training enhances aerobic performance because the body is forced to adapt to lower levels of oxygen. It responds to this lack of oxygen in multiple ways. There is an increase in the number of red blood cells, and with this increased haemoglobin volume and concentration. There is increased capiliarisation on the alveoli in the lungs, creating a larger surface area of capillaries, enabling a much faster rate of gaseous exchange through diffusion. As well as increasing the rate of oxygen transportation, the body is able to buffer lactate more effectively. All of these changes will result in me seeing an improvement to my V02 max. Which improves my overall performance as there is more oxygen available, therefore means that the hydrogen ions can join with 02, as opposed to any spare H ions having to join with pyruvate. These benefits continue for ten to fourteen days after I return to sea level. Therefore, I would time this training so that I could return to compete in an important match and be able to feel the positive effects.

Altitude Training happens in three phases:

1. Acclimatisation- This happens as soon as reach altitude, and usually occurs for 3-10 days. Here I would get used to reduced partial pressure of oxygen (p02) and need to take longer recovery time in comparison to when at sea level.
2. Primary Training- Lasts between 1-3 weeks. I would progressively increase the amount of training, until capable of training at intensity I was at sea level.
3. Recovery- Lasts 2-5 days. It is the preparation of returning to sea level, it is an opportunity to recover from the fatigue as a result of the high altitude and gradually reduce frequency and intensity of training.

After I return from altitude to sea level, there are three further phases that take place.

1. Positive Phase- This is when I will have an increased capacity of oxygen being carried in the blood, usually lasts up to four days.
2. Progressive Training- The volume and intensity of my training will gradually increase, however level of performance may drop as a result of altered fitness levels and coordination losses from the altitude training. After several days of this there will hopefully be improvements in fitness and coordination.
3. Fitness Peak- The optimal time for competing is 15-20 days after returning to sea level. This is due to there being a mixture of positive factors; increased oxygen transport, more economical breathing. Leading to a better performance in this final stage.

It is essential to try and stick to this schedule when training at altitude at within the recovery process, in order to see the best results and prevent any risks to my health.

C1- Tackling

Poor Anaerobic Fitness

For my specialist position, like other positions, I need to be able to tackle. And be able to tackle with the same intensity throughout a whole game. However, specialist for my position I need to have good acceleration off a scrum, in an attempt to tackle the opposing fly half. And in open play, it is a requirement for me to be filling in the back line. I am required to have a high level of aerobic capacity, in order to last the duration of a match, but as the tackle situation is a very quick action, the main energy system being used would be my anaerobic systems- ATP-PC and Lactic Acid system.

The ATP-PC system takes place without the presence of oxygen as it is anaerobic and used for short duration exercises (0-10 seconds). It doesn’t produce any by-products and is specifically targeted to be used for very high intensity exercise, therefore suitable for a tackle. And finally, it has quick recovery period of 30 seconds to 1 minute. Which means it is very useful for during a game as there may be a short break in play as the ball goes in to touch and my stores can be replenished and allows me to complete another tackle of high intensity. It is a process that provides energy for the resynthesis of ATP without the use of oxygen.

The breakdown and resynthesis of ATP is a coupled reaction. ATP gets broken down into ADP + P+ Energy, which is used for the muscle contraction. This is followed by the ADP re-joining with P + Energy, from the energy systems to create ATP. In the process of creating ATP-PC, it only has a few reactions, therefore is very quick. Phosphocreatine (a compound of creatine and phosphoric acid) is created by the creatine joining with phosphoric acid in the presence of energy. The reaction that takes place is ADP (adenosine diphosphate) joining with P (phosphate) hence creating ATP (adenosine triphosphate). This combines with PC, to create the final formula ATP-PC.

The other anaerobic energy system is the Lactic Acid system, it is similar to the ATP-PC system as it also used for high intensity exercises, although not quite to the same extent. It would be used for activities that from 60-95 per cent of maximal effort. This system normally kicks in just after my ATP-PC stores are depleted after 10 seconds and last for 3 minutes. Therefore would be used when performing a tackle as the whole movement from the preparation phase to the end of the recovery phase usually lasts longer than 10 seconds. However, in comparison to ATP-PC, it takes from 20 minutes to 2 hours to recover and replenish stores. The removal of lactic acid can be helped by stretching and replenishing glucose stores. The process of the lactic acid system is as follows; glucose goes through the process of glycolysis (where 2 ATP are produced), this creates pyruvate, form here the excess hydrogen join with the pyruvate, forming lactic acid. This process continues and I reach my lactic threshold of 2mmol. However , if it still continues and reaches 4mmol of lactic acid per litre of blood then my muscles will go through OBLA (Onset of blood lactacid accumulation), this is the point at which lactic acid starts to accumulate within the blood and muscles as a result of the lactate system producing more than is able to be dealt with.

The issue for me is the inability to resynthesize PC quickly enough in between play, as the stores are continuously being depleted from the intensity of different skills. EPOC (Excess post-exercise oxygen consumption) is part of the recovery of the two energy systems. It can be the fast alactacid component, or the slow lactacid component. During the fast component, ATP and PC levels are restored, as well as the reloading of myoglobin with oxygen (75 per cent of PC is restored within one minute and is fully restored within four minutes). Generally the myoglobin reloads with the oxygen in 2 minutes. I need to be able to maximise the potential of these short recovery times in order to be more effective on the pitch.

C2- Interval Training

In order to improve my tackle I need to improve the use of my anaerobic energy system. This can be done through interval training. Interval training is periods of intense exercise followed by rest, or lower level of expenditure (effort). It is necessary to have a good level of aerobic fitness before doing interval training to make the most from the training. I would design an interval training workout to replicate a game scenario- make it specific to rugby and the tackle situation, incorporating lots of power movements. The training programme will consist of high-intensity activities that raise the heart rate to 80% or more of its capacity, in order to see the greatest benefits and imitate a game scenario. Interval training is based on the principles of intensity, duration, length of recovery and number of repetitions.

An anaerobic threshold can be improved through quite short, very intensive intervals and longer, slightly less intensive intervals. These are best considered at three levels:

1. Very short (less than 30 seconds), very high-intensity work with rest periods of less than 30 seconds. This training will produce heart rates at between 95 and 100% of maximum and primarily address the anaerobic systems, though evidence suggests that intervals of this length will also provide an aerobic stimulus.
2. Work periods of two to four minutes and rest periods of between 30 seconds and two minutes, with a heart rate of approximately 90% of maximum, will work both the anaerobic and aerobic pathways.
3. Longer, intensive endurance methods can also be used, particularly earlier in the training year or with young players. Workouts take eight to fifteen minutes, and these are also conducted in blocks or intervals. Here, intensity is at 85% to 90% of maximum and recovery time is up to five minutes. The number of repetitions is four to five, and the frequency is once or twice a week.

After considering all three different levels that interval training can take place at, I have decided to choose the first one. This consists of high intensity workload and short rest periods, therefore specifically targeting my anaerobic energy system and is also the most realistic to apply to rugby as a whole, with minimal opportunity to rest and recover.

The leg drive is one of the key aspects of performing a tackle; therefore I would set up a routine that involves multiple exercises which target the groups of leg muscles. The session becomes more effective if I take part in active recovery, in the form of walking or jogging, which is undertaken between repetitions.

A suitable program could look something like this:

Gradual warm up- Here I would prepare my body for the exercise/ workout ahead, increasing the supply of oxygen to my muscles, get in the right frame of mind and to prevent injury, it also generally increases chemical reactions. I would pay particular focus to my leg muscles as they are going to be targeted in the workout ahead. After this I would begin my set of exercises;

To make it specific to rugby, I would do this session outside when possible; to factor in the environment I would be playing in, as opposed to in a gym. Furthermore, I would use the tackle shields to incorporate ‘the tackle’ itself.

1. Start laying on the ground, a partner will be holding a tackle bag 5m away. I will run into the tackle shield and perform the driving phase on the bag. Particularly focusing on initial low body positioning and leg drive upwards, but not taking the player to the ground.
2. From here, I would jog backwards and return to the starting line, as soon as I reach the line I would accelerate off on a 10m sprint passed the bag. This whole motion should take less than 30 seconds, therefore fits into the high intensity bracket I am aiming for.
3. After this I would walk back to the start and repeat 10 times. Making sure I began on the floor each time.
4. This exercise is directly transferable to a game. It imitates getting off the floor from a breakdown at the start, accelerating up to make a tackle, dropping back 5m when in defence and finally a sprint up to represent a blitz defence. The short walk back gives my ATP-PC stores just enough time to replenish before carrying out another short burst of exercise.
5. As I repeat the drill, I will begin to tire, this means I will have to also focus on my technique when making a tackle and sprinting through.

There are other drills and exercises that may be done for interval training. However, I feel that this is the most appropriate for improving my effectiveness in a tackle situation and represent other factors that need to be considered in between each tackle that is made. As I repeat interval training sessions, I will become fitter and my VO2 max will improve and I will be able to work at a higher percentage of it before I cross my lactate threshold. This will allow me to eventually train for longer and not tire as quickly in a game whilst attempting to make repeated tackles.

C1- Rucking

Lack of power in lower body (legs and core)

As I am an openside flanker, I am required to be first to the breakdown in attack and defence on most occasions. A high level of aerobic fitness is required to make it to the contact area/breakdown. However, once there, a short explosive movement is necessary to be effective. I am not able to clear opposition from the ruck as effectively as McCaw, partly due to technique failing as I tire. But the main cause for this is my lack of power and strength. To be destructive at the breakdown I need to have strong leg drive, a strong core to keep myself stable and good level of upper body strength to twist opposition out of the way. There are a variety of techniques which can be used for clearing out opposition, however I am going to focus on the most common style of aiming to get below the opposition player, ( between them and the ball) and drive straight through maintaining on my feet by engaging my core. This power will be generated from my legs, as it is a short sharp motion of high intensity fast twitch muscle fibres will be used because they contract with greater speed. Furthermore, they produce more force as more myosin filaments are present which are thicker. They have a more developed sarcoplasmic reticulum, meaning they release and remove calcium ions quicker to enable faster contractions. Finally, in comparison to slow twitch fibres they contain different myosin ATPase, which releases energy more quickly. However they do fatigue quickly, therefore only suitable for short bursts, such as clearing out at a ruck.

C2- Plyometric Training

To improve strength and power I will use plyometrics training, it is designed to produce fast, powerful and explosive movements which engage the stretch reflex (a protective mechanism preventing the overstretch of muscle fibres). The movements used are; bounding, jumping or hoping. Within each of the movements muscle groups work eccentrically before the overstretching is detected by specialised receptors called muscle spindles, which send a nerve impulse to the spinal chord which results in a powerful concentric contraction. As I develop the power generated through my legs, I will see the benefits the next time I am in a rucking situation. Within my training regime I would set up a routine/program including plyometric exercises which involve different muscle groups. I would specifically target my leg muscles, which I use for driving back the opposition. Three exercises that are easy to complete but very effective are; jumping squats, jumping lunges, and squat thrusts. All three of these movements can directly benefit my performance as they replicate the movement and muscles used in rucking.

The plyometric movement involves three stages; I will use a squat as the example to explain each phase:

The first phase is the eccentric contraction, where the elastic energy is generated and stored. It is a controlled movement, slower than the concentric contraction. For example the downward phase in a squat.

The second phase is the short hesitation period between the eccentric contraction and the start of the concentric contraction. This period is known as the ‘amortisation phase’. The quicker this phase happens the less time you pause for, the more powerful the muscle contraction will be. This is where the muscle spindles detect the overstretching of muscle fibres and prevents you going any further to prevent injury. This stage occurs at the bottom of the squat, prior to the acceleration upwards.

The third phase is the concentric contraction; it is the fastest stage of the movement, where the power is applied. For example, in a jumping squat, accelerating up just after the amortisation phase.

[](http://www.google.co.uk/url?sa=i&rct=j&q=plyometric+training&source=images&cd=&cad=rja&docid=oDnunwckQXwJ_M&tbnid=wQ2v3be7boC26M:&ved=&url=http://hubpages.com/hub/7_Minute_Plyometric_Workout_-_Squat_Jumps&ei=j1V-UemdGuSe7Ab72YC4Dw&psig=AFQjCNEKPJKi4zIMBIJCuwvR8ECz4O-zhg&ust=1367320335829271)I would incorporate plyometric training into my workout plan, to specifically develop my power and acceleration alongside general strength. I would do it once a week as it is a hard workout and requires several days to fully recover and allow me to improve other aspects of my fitness too.

An example of a plyometric session may look like this:

* 10 x jumping squats- paying particular focus on the slow downward motion before a fast acceleration. This will replicate the driving phase, as I clear out the opposition. The squat also incorporates my back muscles and core, which play an important role in stabilising the movement.
* [](http://www.google.co.uk/url?sa=i&rct=j&q=plyometric+training&source=images&cd=&cad=rja&docid=4AHBVmwngv_OjM&tbnid=pyop6j6SLGGdMM:&ved=&url=http://catcore.blogspot.com/2012/03/plyometric-training.html&ei=j1V-UemdGuSe7Ab72YC4Dw&psig=AFQjCNEKPJKi4zIMBIJCuwvR8ECz4O-zhg&ust=1367320335829271)10 x jumping lunges- Once again, the acceleration upwards will develop my fast twitch fibres to be more reactive in a match. The alternation of legs requires me to ensure I get high enough off the ground by exploding upwards, at the same time, similarly to squats my core will help to keep my balanced and develop my abdominal muscles simultaneously. The initial drive after the eccentric downward phase demonstrates a similar amount of force required for the immediate contact area in a ruck.
* 10 x squat thrusts- This exercise replicates how low you need to get in a ruck in order to be successful. When I do squat thrusts, I make sure that I keep my head in a neutral position, looking straight ahead to prevent myself from falling forwards, I try to transfer that into a competitive situation because if I come off my feet I would give away a penalty.

I would repeat this circuit 3 times, with a one minute break in between each circuit. Therefore, it will keep more body working anaerobically whilst performing the movements. Within my plyometric session I would also do other exercises for my other body; clap press ups, walking press ups. And further exercises that I could bring in to work my legs would be box jumps, and silent squats to work the same muscles as the exercises I have mentioned above. All of these leg exercises will benefit my individual performance in a game, but also aid the overall team performance and opportunity to attack if I win more turnovers as a result of plyometrics training.

C1- Kicking

Lack of Flexibility

In order to perform a successful kick with good distance and accuracy, I need to be flexible; (have a good range of motion at the joint). For kicking I need to have flexible quadriceps and hip flexors for the drawback phase and flexible hamstrings for the drive phase. The further I am able to drawback my leg, the larger force I can exert on the ball. Furthermore, the drive phase is equally important to guide the ball, and exert the final force through the ball to help with momentum. Therefore, the higher I am able to get my leg on the drive phase the further the kick will go and more accurate it will be. Also, if I am more flexible, I will be able to accelerate through the motion with less risk of injuring myself.

Although I have a reasonable amount of flexibility in my legs, my hamstring flexibility needs to improve in order to have a greater follow through. The flexibility in my quadriceps and hip flexors is more sufficient, there is still room for improvement but I am going to focus on my hamstrings as I feel they would benefit me more for this skill. As a result of my lack of flexibility in my hamstrings it can cause me to hold back on a kick, in order prevent injury. This has a negative effect on the teams’ position on the field, which shouldn’t be caused by my flaw, therefore needs to be improved. On the other hand if do push it too far, I cause damage to that muscle, which can be prevented with the appropriate training and stretching.

C2 PNF stretching (Proprioceptive Neuromuscular Facilitation)

To improve flexibility I need to begin to incorporate PNF stretching in to my training program. It also improves muscular strength. It is a session on its own and needs to be completed properly to be effective and remove the risk of injury. PNF results in DOMS (delayed onset of muscle soreness) up to a few days after, however in the long run it is extremely successful in improving flexibility. Before using PNF, a thorough warm up must be completed. This helps to increase the body's core temperature while also increasing the body's muscle temperature. This is essential to ensure the maximum benefit is gained from your stretching, but more importantly to prevent injury. The process of PNF stretching involves passive stretching with the help of a partner. They hold the body part and manoeuvre it to stretch the muscle. For kicking, your hamstrings are the main muscle used; therefore they need to be flexible. To explain the process I will describe how to stretch my right hamstring.

[](http://www.google.co.uk/url?sa=i&rct=j&q=pnf&source=images&cd=&cad=rja&docid=cfijnyf1FX7h7M&tbnid=6wKPEr2BV9qPSM:&ved=0CAUQjRw&url=http://www.complete-strength-training.com/pnf-stretches.html&ei=QlZ-UZvCM5SHhQfqh4CACw&psig=AFQjCNFaCkQwRJ_K5AMnOlMrgHJCfErnsQ&ust=1367320506075663)With my partner I would lie on the ground with my back flat and my left leg straight on the floor. My right leg would be elevated straight and my partner would support it by resting it on the front of their shoulder whilst kneeling on the ground. They will begin to push my right leg back until the muscle begins to tighten, and cannot move any further. This prevention is caused by the stretch reflex kicking in. The muscle spindles, which are sensory receptors, detect the change in the length of the tissue. They send signals through sensory neurons to the spinal cord, and interneurons, they then direct the signal to motor neurons causing a contraction. The Golgi tendon senses the muscle tension when a muscle is contracted, sending signals to the brain about how much force is being exerted and where. It almost acts as a safety element, to prevent overstretching. At this moment, my partner slightly lowers my leg to reduce the strength of the contraction. This is followed by me contracting the groups of muscles in my legs for five seconds by pushing against my partners shoulder. The stretch is then held for a further five seconds as I relax the muscle. After this, my partner gradually pushes my leg further towards me until the stretch reflex kicks in again and the process is repeated. This pattern continues until no more movement can occur safely and my partner gradually lowers my leg to the ground. To stretch the calf muscle, my partner would pull down the top of my foot to feel the stretch in the lower part of my leg.

This will have a positive effect on my performance as I will be able to follow through further allowing me to have greater control and accuracy of the kick. It will lead to me being able to kick further down field and be more confident with aiming to place the ball nearer the touch line. Therefore, giving my own team better field position to compete from.

C1- Sidestep

Experience, DCR, Sensory Information.

I attempt to use sidesteps in my gameplay more often to evade contact and break the gain line. The sidestep can be improved by working on my agility, however like most skills the best way to improve it is practice and being able to recognize when the most effective time to use it is. For example body angles and the where the oppositions centre of balance is as you approach them, so that you can attack the weak side. This is particularly applicable, it is all about being able to register the stimuli and compare them to previous experiences and select the correct motor program. In comparison to my chosen elite performer, I do not register the stimuli from the display as efficiently as he does and the information takes longer to pass through my model of information processing as a result of him having practiced the skill more than me, in both an isolated and competitive environment. He will also have a larger variety of previous motor programs that have been stored in his long term memory which can easily and quickly be selected to utilise in different scenarios.

As the sidestep is an open skill, there are many external factors which can affect the execution of it, therefore confirming the importance of having that practice/experience to aid the decision making element.

Selective attention plays an important part in any skill, it is the ‘ability to filter out any irrelevant information from the display in order to allow you to focus on the important information required’ to complete that skill. With a sidestep I haven’t mastered the ability to use selective attention to benefit my execution of the skill to the same level as Cooper. I can occasionally be distracted by other players that aren’t directly going to effect the situation. This leads to me sometimes failing to execute the sidestep as my focus is elsewhere, in comparison, Cooper will have more experience of having to deal with multiple stimuli simultaneously and have trained to discard the unnecessary information.

The more stimuli that are present at one time, leads to a delay in reaction. This can be explained through the ‘Single Channel Hypothesis’. It states that you are only able to register one stimulus at once, and you have to wait for the first stimulus to be completely registered before focusing on the second. This leads on to the Psychological Refractory Period, which says that there will be a delay in reaction if one stimulus is presented shortly after the first. You have to register the initial stimulus first; therefore if a further stimulus is presented then there will be a delay/hesitation in reaction. This explains how the sidestep works well, because it effectively puts this directly in to place for the defender having a change of direction representing the second stimulus. However, unfortunately the psychological refractory period also occurs when performing a sidestep as an attacker. This is because there may be a drifting defender behind the initial line, this can throw me off focus and I have to read his movements as well as the first defenders. But as we know, this cannot be done at the same time, therefore it can cause me to be caught flat footed and caught in possession as I panic with too much information from the display.

In conjunction with this, Cooper has a greater level of anticipation, which he has gained from experience; it has allowed him to predict the movement of defenders. Once again contributing to his ability to read the game. I am often unable to anticipate the opposition movements and heavily rely on present movements.

The concept of ‘response time equalling reaction time plus movement time’, suggests that if my reaction time to the stimulus is negatively affected by the inability to discard irrelevant information and anticipate future movements will have an effect on my overall response time, causing me to not complete the movement in time and be tackled.

C2- Developing Information Processing Through DCR, and Improve Response Time

Experience is a difficult thing to work on in training, as you would gain the most benefit from match practice. However, I can improve my ability to recognise different stimuli and speed up the DCR process through setting up specific drills. I would initially set up a one on one situation, and attack the defender. This would get me used to manipulating the opposition in to an off balance position, and allow me to attack this weak area. I would gradually progress this by adding in more defenders, creating more stimuli to consider. As a result of there being more stimuli present in the display it would improve my selective attention through me having to eliminate the other players and solely focus on the player I am attacking and possibly the defender to the side of him. With varied repetition, this would vastly improve my ability to effectively focus on the important aspects in a match. Continuing with the same drill, I would give the defenders more freedom on the style of defence they will use, which gets me to think on my feet. This will begin to improve my anticipation as I build up multiple motor programs and can predict what the opposition may do in a game if I have seen it before in training. This increased freedom for the defenders replicates a game situation as close as possible because I don’t know what the defence will be doing in a game.

It is also essential that I improve my reaction and movement time, resulting in an overall improvement in response time and allowing me to perform the sidestep as efficiently as possible. To improve my reaction time I need to train myself to respond to different cues quickly, to replicate the variety of information produced in the display within a match. This can be done through repetition/practice, using mental rehearsal. Movement time can be improved by developing my fitness to reduce the time taken it takes to perform the action. The main aspect of my fitness I would look to improve directly linked to the sidestep is agility. Therefore, I could use the Illinois agility test to see these results. The test involves mastering a course of cones, testing your footwork and change of direction, ideal for developing a sidestep.

C1- Box kick

Lack of confidence/ self-efficacy.

Confidence and self-efficacy play a significant part/role in completing a skill. Self-confidence is ‘a person’s belief in their ability to achieve success. And ‘self-efficacy’ is known as ‘situation-specific-self-confidence’, meaning how the environment you are in can affect your self-confidence.

Occasionally, when playing at scrum half I have to use the box kick as a way to make territory, relieve pressure for our fly half and sometimes as a way to attack with the winger chasing. Each of the kicks varies slightly, depending on what I want to do with the ball. As a flanker, I tend not to perform a box kick very often, therefore when I am playing at scrum half I do not have as much confidence in executing the kick. This is as a result of me not practising in training as much as other skills that are specific to my position. Therefore I do not have many previous performance accomplishments to form future expectations; any previous attempts at the skill may have not been overly successful as not practised very often. This results in me losing my self-belief and lowers my motivation, creating a negative ‘snowball effect’ where I believe that the skill isn’t possible after so many failed attempts in the past. A further factor effecting my self-efficacy is ‘vicarious experiences’, this is part of Banduras self-efficacy model, where he suggests that performers can gain confidence from viewing others of a similar ability successfully completing the same task. One of the possible causes for me being unable to perform a box kick consistently and successfully is due to me not having a significant other, who is competing at a similar level to compare myself to. Another detail that reduces my confidence in my performance is the fact that my coach is also a forward therefore is unable to give specialist feedback on the box kick.

C2- Regain Self-Confidence and Efficacy

In order to regain my self belief/ confidence, I need to manipulate the environment in training to ensure performance accomplishments. This may be done by reducing the amount of pressure I am performing the kick under. I need to return to doing it in an isolated situation to show myself that I do have the right technique. By gradually breaking down the whole skill in to different parts I can refocus on my technique. I feel the appropriate type of practice would be the progressive part method because it isolates the separate components of the skill, to allow concentrated practice on each factor of kicking, for example the foot placement, leg drive and ball drop. After I have mastered the first element I continue to join each stage together until the whole final skill is produced. This would reinstate my confidence that I can do the skill, and I will be more willing to do it in a pressured scenario.

Continuing, I need to find a performer of a similar standard and watch him in a match situation performing the skill, this will give me confidence that I am able to do it and give me the motivation to prove that I am of the same standard by performing a box kick. This is known as a vicarious experience.

Furthermore, verbal persuasion from my coach will help me regain confidence, as he makes me believe that I am able to reach the goals and targets he has set me. Positive self-talk also helps the situation as I can convince myself that success will follow. This shows me using cognitive techniques to ‘control my mind’. Further techniques could include me getting in to a pre match routine, which will help control my sporting performance. Within this routine I could include imagery and visualisation of what the box kick should look and feel like as a means of perfecting preparation. Finally, if I got coaching from someone who is a scrum half themselves, then I would get more accurate and concurrent feedback as I am practising the skill which will lead to me having greater confidence in my performance as I would respect what he has to say as he regularly performs the box kick himself.