# Candidate 1 – rebounding in basketball

## Stage 1(a) – investigate performance

I chose to capture observation schedule data (Appx 2a, 2b, 2c), across 3 full games against teams in league one. Aggregating this data across the three games, will provide me with a quantity of data that would negate any performance anomalies, such as against an unmatched opponent, providing an abundance of data to analyse. The design of the observation schedule would allow me to prioritise performance areas through comparing the percentages calculated of successful/unsuccessful contributions.

In order to collect the most accurate data for my observation schedule I chose to use 3 tablets in each game. One wide angle picking up all court and the other two focussed on attacking and defensive keys. This increased focus on the key interactions, enabled me to pick up fine technical details of when rebounds were unsuccessful and allowed me to identify any patterns which were limiting success. Using 3 tablets on tripods, for whole court coverage, removed the need to rely on parents or teacher to film my games. This then allowed me to be relaxed and play my normal game without any added pressure, removing the chance of the data not being a true reflection of my performance data and skewing any analysis of performance issues.

Choosing to collect data on my 30m sprint test (Appx 1b) whilst competing amongst my teammates, provided a highly competitive environment to ensure my efforts during the test were at a maximum. This resulted in having results which were an accurate reflection of my best to base any future comparative data from.

## Stage 1(b) – analyse information

**Data gathering Results -**

Defensive rebound success from game analysis – 90%

Offensive rebound success from game analysis – 25%

Vertical Jump Test – 110cm (excellent)

30m Sprint Test – 4.8secs (poor)

RSA – -20% decrement (poor)

From the results of my GA (Appx 2a), the results indicate that I am fulfilling a key responsibility as a centre and claiming rebounds in and around the key. This has multiple positive implications for my team. It reduces opportunities for the opposition to get the ball in close proximity to the basket, decreasing their likelihood

of scoring through an easier layup attempt and missing their scoring opportunity on their set.

Additionally, it allows our team to get more opportunities to fast break and get an overload on the opposition, increasing our own scoring chances. Consequently, after the opposition realise this, they become more conservative in their endeavours for attacking rebounds, being more defensive minded after their teammate shoots. This creates a numerical advantage in the key for my team, often allowing us to draw fouls as the outnumbered opposition becomes frustrated and diffuses their scoring potential.

However, after comparing data sets from my excellent vertical jump test result, (110cm) and my strong defensive rebound percentage (90%) this is not reflected in my offensive rebound success (25%). This suggests that whilst I am capable of being dominant in collecting rebounds something is preventing this in the opposition key. After consideration of my speed testing results (4.8s/poor) and my own personal reflection I am aware that I am often slower than most in a 20m transitional sprint from key to key. Therefore, I attribute my poor offensive rebounding being from my hesitancy to commit to rebounds and give away space ‘basket side’. As a result of this caution, I am not contributing to scoring 4-6 ‘easier’ points a game and this then puts more pressure on the perimeter shooters to make more shots.

# Candidate 2 - backhand stroke in tennis

## Stage 2(a) – review sources

### Pressure drills

Pressure training is putting the player under stressful conditions when performing shots during training sessions. An example of this is playing in front of an audience. Pressure drills are important, as according to lifetime training "One of the things that's always associated with peak performance is the ability to relax under pressure."[1] This is because "blood pressure lowers, the heart rate slows, oxygen consumption decreases and, critically, the electrical activity in the brain changes."[2] However, when under pressure Jeanne Segal (Ph.D.) says "Your heart pounds faster, muscles tighten, blood pressure rises, breath quickens, and your senses become sharper."[3] This is dangerous in tennis as muscles tightening will prevent the proper technique being performed as it needs to be as fluid and relaxed as possible.

Pressure drills develop your ability to perform under stressful conditions, as according to Craig Pickering (2008 Olympian) "athletes need to be exposed to more pressure during training, to better prepare them for the pressures of competition."**[4]** He then goes on to explain how training under pressure allows you to make a mistake in match conditions, which gives you the ability to correct these mistakes before the actual competition. However, Elliot warns that "If athletes were unable to cope with the added pressure and they react with more negative outcomes, then coaches should temporarily decrease the challenge and increase support."

According to Harvey Dulberg (PhD), pressure training should "simulate competitive situations and the game atmosphere as much as possible."**[6]** He then goes on to give an example of how pressure drills can be incorporated into a Tennis session. He says, "Pretend that it is 5-4 and the player is serving for the match."**[7]** He then goes onto say that this will be beneficial, as it will better prepare performers for when they encounter the same situation in a real match.

### Fartlek Training

Fartlek training "involves varying pace or difficulty during maintained cardio"[8] and is deemed one of the most effective ways of improving endurance in performance athletes with the approach putting "extra stress on your system, eventually leading to faster speeds and improving your anaerobic threshold."[9] One particular benefit to my training is that performers can "make my sessions more responsive to how I feel on any given day"[10] and "can help teach your body to become good at reusing lactate as a fuel source."[10']

1 https://www.lifetimetraining.co.uk/blog/2013/december/15/how-to-improve-exercise-performance-under-pressure/

2 https://www.helpguide.org/articles/stress/stress-symptoms-signs-and-causes.htm

3 https://www.freelapusa.com/6-tips-on-dealing-with-pressure-in-sports/

4 https://www.theartofcoachingvolleyball.com/drills-to-prepare-for-pressure-situations/

5 https://medium.com/kaizen-habits/

6 https://www.sciencealert.com/taking-breaks-improves-practice

7 https://www.lifetimetraining.co.uk/

8 https://www.raceatyourpace.co.uk/fartlek-training-for-beginners-everything-you-need-to-know-about-fartlek training/#:~:text=Fartlek%20training%2C%20which%20translates%20to,and%20again%20with%20increased%20pace.

9 https://www.verywellfit.com/what-is-fartlek-training-2911954

10 https://www.runnersworld.com/uk/training/a36362823/fartlek-run/'

## Stage 2(b) - analyse the findings from the review of sources to create a Personal Development Plan

Lifetime training says that peak performance is always associated with the ability to relax under pressure. The ability to relax under pressure whilst performing the backhand technique will be very beneficial to my tennis performance, as this ability would allow my body to perform the shot with fluidity. If I am not fluid then my muscles will tighten up, causing an incorrect technique and a higher chance to miss the shot. Because of this knowledge gained, I will include pressure drills to train my ability to keep relaxed under pressure.

Craig Pickering states that training under pressure will allow me to make a mistake during the training session, which gives me the ability to correct these mistakes before an actual match. However, Elliot highlighted the need to consider the potential negative impacts of pressure training within a PDP. If I was to be unable to succeed in practice whilst under pressure this could result in negative outcomes towards my overall development. Considering both arguments, I plan to implement a 30cm square target for my backhand baseline strokes to aim for in weeks 1-2. However, if I notice my success rate for any set of 10 strokes dropping below 50% I will take a break after this set and ask my coach for some technical feedback before

removing this target for the remaining sets in this session. This will remove any potential longer negative impacts and allow me to continue to have success in the remainder of the PDP session.

Harvey Dulberg says that a good way to simulate competitive situations and the game atmosphere as much as possible would be to pretend that it is 5-4 and the player is serving for the match. Therefore, I have incorporated this concept into my training program (appendix 6) by carrying out a pressure drill where the opponent always starts 30 love up at the start of every game.

# Candidate 3 - post-PDP analysis and evaluation

## Stage 4(a) – analyse post-PDP data

My timed match analysis showed significant improvement with the pattern of 'one on one dribbles' I both attempted and was successful with across each quarter of the game – I attempted 6 in each of quarters 1-3 and 5 in quarter 4. Although there was a minimal reduction in the number attempted in the final quarter, this was still an improvement from my pre-PDP data and I was also able to maintain a success rate of 80%+ in the first and final quarters which presented significant progress. I also found that my Sprint Fatigue Test results had improved by 7% taking me from a 'Poor' rating now into 'Average'. Although there remains further room for improvement with this test result, making this small improvement with my repeated sprint ability has shown to have a significant impact on my 'one on one dribbles' in the game context and even highlights how much further still I could take my performance levels with continued progress. These results are now making me a threat on court throughout each quarter and are allowing me to beat my opponent in the often crucial last quarter where I am creating opportunities to attack the basket and putting points on the board late in the game.

## Stage 4 (c)(i) – justify new development needs

My Sprint Fatigue Test results (appendix 9) highlights improvement from my pre-PDP results, however only to take me into the 'Average' rating against national norms. This remains an area I would like to develop further as I am most often competing against players of extremely high fitness levels and so I need to be able to match or even better this to be in the best condition possible to perform at my optimum levels. If I am able to develop my repeated sprint ability even further, I will not only be able to further improve on my offensive input at different stages of games but also be highly effective in defensive contexts where I'll be able to sprint against direct opponents without giving any easy opportunities to run past me and attack the basket which will reduce opposition scoring opportunities.'