



GCSE PE

PEP

Aim:

To improve my serving technique and accuracy by improving my coordination and the power in my whole body

Introduction

My name is [REDACTED] I am 15 years old, and I will be trying to improve my serving in tennis and the power of my whole body, by carrying out training that I will record below.

Tennis is a very well-known sport for having a good serving technique and a good accuracy. To achieve good strokes (either drive/forehand or backhand) you will need to have a good arm power, you will also need to have very good coordination to achieve the stroke quick and efficiently. On the other hand, in tennis you need to run a lot, and very fast.

I started tennis approximately 2 years ago, and I improved a lot in these 2 years. I will be aiming to improve even more throughout these 6 weeks, by carrying out diverse types of tests through my training and improving in my weaknesses.

I will do the coordination test to see if I improve my coordination throughout the weeks and I will compare them to normative data, to see where I am positioned. This will help me improve my technique when playing a tennis match, I will also analyse the result. Apart from the coordination tests, I will also do a serving test myself to improve my serving accuracy as I am currently very bad at it. I will compare myself with pre-, mid- and post-test results to see if I improve and I will analyse the results at the end of the 6 training weeks.

Cumulative word count: 248

Aims and planning

SMART targets:

Specific - One of my main weaknesses is the serving. My accuracy isn't particularly good, and I would like to improve this throughout my training. Then I would like to improve my coordination to do better in matches and the power of my whole body.

Measurable - In order to measure the progress of my work-out and tests, I will repeat them every week of my training plan. I will repeat my work-out 2 times a week. The coordination test every Wednesday and the serving test every Saturday.

Achievable - The serving in Tennis is very important, therefore with the test I created to improve my coordination (in the serving technique) and accuracy, I think I will be able to improve at least a bit more.

Realistic - I think I can achieve what I planned to achieve throughout these 6 weeks.

Time-bound - I will firstly train with a more basic work-out with a lower intensity, until finally trying to do a more plyometric work-out, with a higher intensity.

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Methods of training

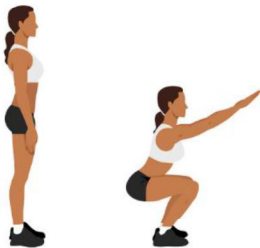
Throughout my 6 weeks of training, I will use plyometric training. My work-out will help me to improve my power of my whole body. As plyometric training is known because it helps to increase the power (strength x speed) and strength (which I also need strength in tennis).

My work-out will consist of these exercises:

Work-out for lower body part:

Squats:

- Sets: 4
- Reps: 10



Step Jumps:

- Sets: 4
- Reps: 8
(30cm)



Plyometric Lunges:

- Sets: 3
- Reps: 12 (each leg)



Calf Raises:

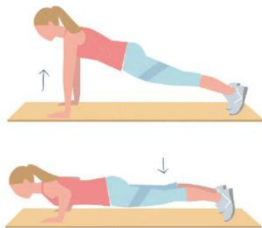
- Sets: 3
- Reps: 20



Work-out for upper body part:

Push-Ups:

- Sets: 4
- Reps: 15



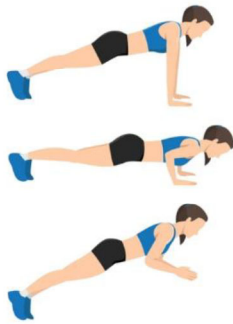
Sit-Ups:

- Sets: 4
- Reps: 15



Plyometric Push-Ups:

- Sets: 3
- Reps: 10



Triceps Dips:

- Sets: 3
- Reps: 15



I will try to follow this plan as close as possible throughout my training sessions. I chose these specific exercises because they help me to improve the parts that I want to focus on.

For example, the squats will work my quads and glutes.

The step jumps help me to strengthen my muscles (E.g. legs and glutes).

I will also do Plyometric lunges; these fast and explosive movements will help me build muscle strength quicker. Those also help me to increase my power, speed, endurance, agility, and coordination.

The calf rises help me to increase my speed, to run quicker throughout the pitch.

The sit-ups help me to improve the general posture of my body and increasing my body control.

And finally, the triceps dips work on the muscles in the upper arm, especially the triceps, which I want to focus on.

Principles of training

I will use the principles of training to achieve my aim, on improving my serving and power.

Frequency: I will do my work-out 2 times a week. I will also try to add more reps and sets. By doing it this way, I will be more motivated, and I will progress better.

Intensity: I chose plyometric training, which means the intensity will be quite high. Therefore, my body can grow stronger as the weeks pass.

Time: Each work-out will not be longer than 45m, therefore I stay motivated through each session and weeks, and I also save time.

Type: My training will be based on plyometric training.

As the weeks go by, I will make my training more difficult. For example, I will increase my intensity by doing more sets and reps so therefore my work-out will be more effective to achieve my expectations. I won't change the type as I think plyometric training is very challenging for me.

Cumulative word count: 840

IGCSE PE Circuit training Record Sheet

WEEK 1

Work-out:

Session 1:

Station	Sets	Reps	Rest Period
Squats	4	10	30 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	30 seconds
Sit-Ups	4	15	1 minute
Triceps Dips	4	15	30 seconds

Session 2:

Station	Sets	Reps	Rest Period
Squats	4	10	30 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	30 seconds
Sit-Ups	4	15	1 minute
Triceps Dips	4	15	30 seconds

Tests:

Serving test

First try	8
Second try	6
Third try	9
Fourth try	4
Fifth try	7
Average	6,8
Out of 12	

Coordination test:

Time	Try 1	Try 2	Try 3	Average
1 minute	38	346	43	42

WEEK 2

Work-out:

Session 1:

Station	Sets	Reps	Rest Period
Squats	4	10	30 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	30 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Session 2:

Station	Sets	Reps	Rest Period
Squats	4	10	30 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	30 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Tests:

Serving test:

First try	4
Second try	5
Third try	7
Fourth try	10
Fifth try	9
Average	7
Out of 12	

Coordination test:

Time	Try 1	Try 2	Try 3	Average
1 minute	48	40	50	46

WEEK 3

Work-out:

Session 1:

Station	Sets	Reps	Rest Period
Squats	4	10	20 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	30 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Session 2:

Station	Sets	Reps	Rest Period
Squats	4	10	20 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	30 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Tests:

Serving test:

First try	6
Second try	4
Third try	6
Fourth try	6
Fifth try	8
Average	6
Out of 12	

Coordination test:

Time	Try 1	Try 2	Try 3	Average
1 minute	50	53	51	51

WEEK 4

Work-out:

Session 1:

Station	Sets	Reps	Rest Period
Squats	4	10	20 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	30 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Session 2:

Station	Sets	Reps	Rest Period
Squats	4	10	20 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	30 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Tests:

Serving test:

First try	5
Second try	10
Third try	6
Fourth try	7
Fifth try	8
Average	7,2
Out of 12	

Coordination test:

Time	Try 1	Try 2	Try 3	Average
1 minute	54	52	53	53

WEEK 5

Work-out:

Session 1:

Station	Sets	Reps	Rest Period
Squats	4	10	20 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	20 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Session 2:

Station	Sets	Reps	Rest Period
Squats	4	10	20 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	3	20	20 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Tests:

Serving test:

First try	7
Second try	7
Third try	8
Fourth try	8
Fifth try	7
Average	7,4
Out of 12	

Coordination test:

Time	Try 1	Try 2	Try 3	Average
1 minute	55	54	52	54

WEEK 6

Work-out:

Session 1:

Station	Sets	Reps	Rest Period
Squats	4	10	20 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	4	25	20 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Session 2:

Station	Sets	Reps	Rest Period
Squats	4	10	20 seconds
Step jump	4	8	30 seconds
Plyometric Lunges	3	12	30 seconds
Calf Raises	4	25	20 seconds
Sit-Ups	4	15	50 seconds
Triceps Dips	4	15	30 seconds

Tests:

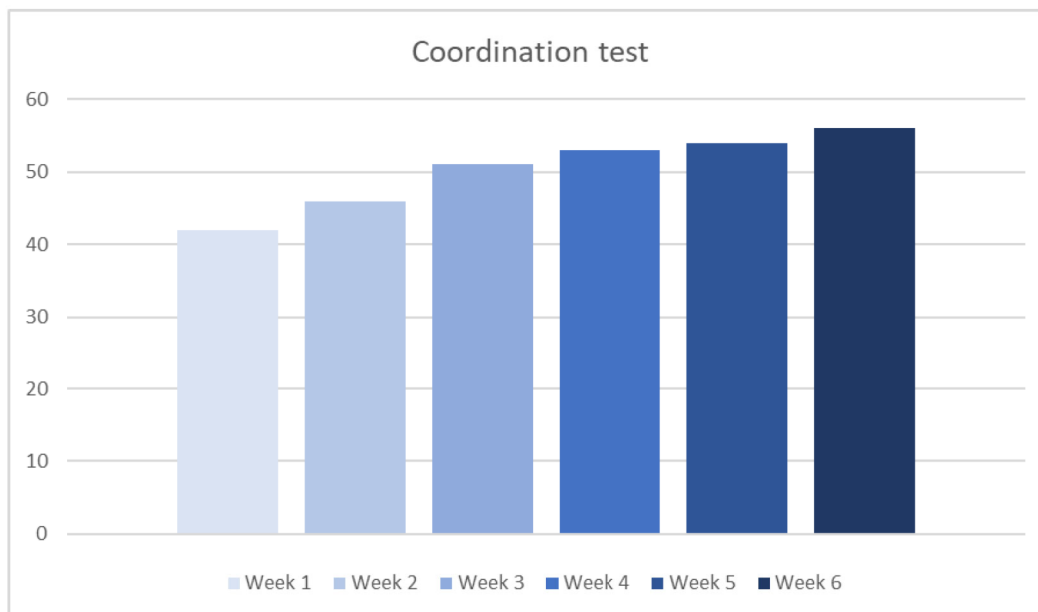
Serving test:

First try	6
Second try	8
Third try	6
Fourth try	11
Fifth try	9
Average	8
Out of 12	

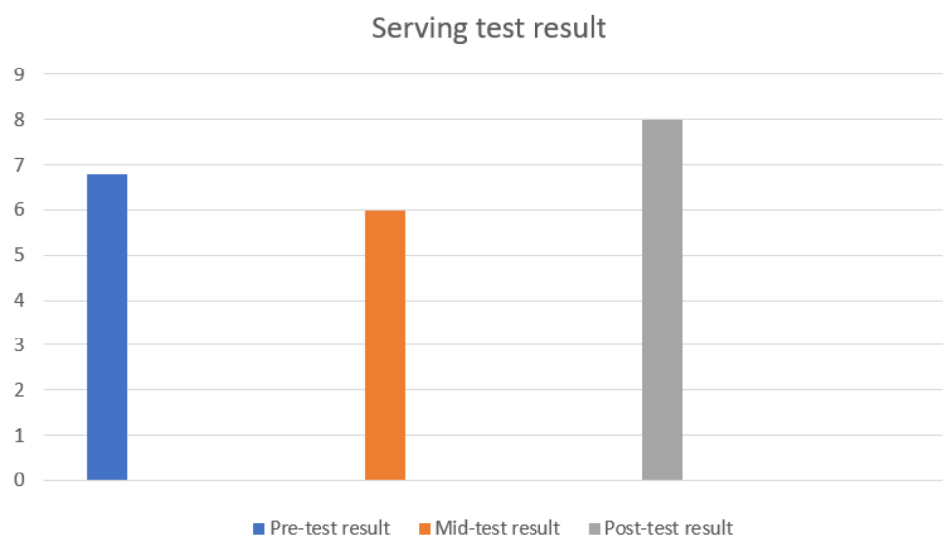
Coordination test:

Time	Try 1	Try 2	Try 3	Average
1 minute	54	57	56	56

Graphs comparing my results throughout my training



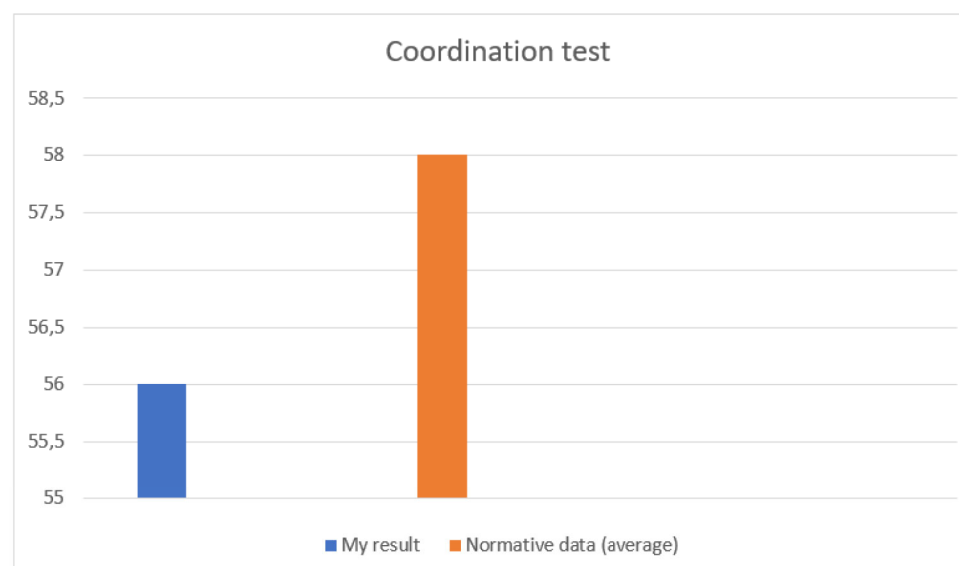
As you can see by looking at this graph, there's an improvement in my coordination test throughout the 6 weeks of training I did. This may be because I did my serving test helping with my accuracy and, I played a lot of matches, which also helped me to improve my coordination.



Even though I did worse in my mid-test result, I managed to improve to an average of 8 balls that entered out of 12 in my post-test result. I might have done worse in my mid-test result because I was not focused enough, or I was not feeling very well that day.

Graphs comparing my result to normative data

Here I will just compare my post-test result to normative data to see how I am, and what rating I have.



In this graph I included the top result you need to get for the range I'm in. I am in the average range. This range was 40-58. Even though I am just in the average range, I am happy with my last result because I improved a lot from the first coordination test I did to this one (the last one).

Evaluation

Overall, I think I improved quite a lot. I have compared myself when I started in week 1 and when I finished in week 6. I want to highlight, my improvement in the serving test I did throughout the weeks. I have started with an average of 6,8 balls that entered out of 12 and finishing at week 6 with an average of 8 balls. This shows a clear improvement in my accuracy.

I also noticed an increase in power, due to the work-out I was carrying out. I made a progress in my arm and leg power. I noticed this due to the amount of strength and power I was putting into my servings and techniques during the matches I made. As you can see with my results I did improve throughout the weeks.

I finally decided to look at some normative data to compare my results of the coordination test I was carrying out. I discovered that I was average. I will have to continue to improve in this sector to become better while performing skills during the matches.

I can say that I applied my principles of training appropriately because I did do what I said before. I did also meet my SMART targets as I improved in my accuracy and my power.

For future training, I should make it even more difficult as weeks pass, because I could feel that my training was quite easy. Also, for next time, I could prioritize more recovery, to prevent any injuries. In terms of nutrition, I should eat healthier and just eat unhealthy foods one day a week. I drink a lot of water as I pass the two litres of water consumption per day, and that helps me to stay healthy to carry out my work-out.

As I mentioned before, I will continue to improve my coordination and therefore I can become better at tennis. I will train regularly (maybe 2-3 days a week) just focusing in my coordination and will carry out the coordination test to see if the training I will be doing is helping at all. Some exercises of my new training will include footwork ladder, this will improve the coordination in my feet, I will also play tennis in a smaller court to improve my coordination of where the ball can end up going and coordinate my body to reply to my opponent's ball and do a successful throw.

Cumulative word count: 1439

Appendix

Here, I will explain what my serving test consists of.

I will position myself in each side of the pitch and simulate a serving in tennis. I will do the serving 12 times (so therefore I throw 12 balls).

I will repeat this exercise 5 times (so I'll position myself in the 4 sides of the pitch and a choice of my own).

Work-out evaluation by week:

Week 1: I did find it quite difficult because there were many exercises, and it was my very first week of doing my planned work-out.

Week 2: This week I was more familiarised with the exercises that I had to do. It was challenging at first, but not as much as the first week. This week I also lowered the resting period of the sit-ups, from 1 minute to 50 seconds.

Week 3: I noticed that the work-out was easier than the past to week for me to perform, therefore I lowered the resting period of the squats, from 30 seconds to 20 seconds.

Week 4: This week was just a normal week, with no complications whatsoever.

Week 5: I did discover that the calf raises were helping me a lot to improve in the speed, therefore, for a more efficient result I lowered the resting period from 30 seconds to 20 seconds.

Week 6: This week was also a normal week, but I did make some changes to my work-out, for a final quick improvement before I finish my 6 weeks to training. I changed the sets and reps of the calf raises.

Physical Activity Readiness Questionnaire

Name	Lucía Sciotto Ciocci
Age	15
Gender	Female
Weight (kg)	48kg
Height (cm)	165cm
Medical information	I used to have asthma, but it does not influence in any physical activity I do.
Past injuries	I sprained my right wrist two years ago, and now I have to wear a wrist support so it doesn't hurt while I play.
Smoke (Yes/No)	No
Activities Currently Undertaken	I currently play Tennis.
Frequency of exercise/training	I train and practice sport 4 times a week.
Describe your current level of fitness	I have an advanced level of fitness.
Additional Comments about health and fitness	I have scoliosis curving to the left. This does not affect any of my physical activity. The doctor encourages me to do sport.