

Hurdles Rehabilitation PDP Commentary

Physiological Analysis

The candidate has justified the three most important components of fitness for the 110m hurdles, by providing an in-depth overview of the physiological demands that was well researched and referenced. There was clear contemporary research into issues surrounding fitness requirements and standards required for success at an elite level.

Relevant fitness tests were identified for the three chosen components and the candidate's results were compared to a range of elite data from a range of journals and specific websites. The candidate at the time of completing the PDP was recovering from anterior cruciate ligament surgery, and this was reflected in the specific flexibility test, data and research to justify future training standards required to return to her activity.

Issues surrounding **validity** and **reliability** were explored to an outstanding level. The candidate was able to reference specific protocols and quotes to justify both the validity and reliability of each test e.g. linking the Wingate Test to her periodised plan by performing the test during the general preparation period. This allowed her to directly compare the results to that of the Polish study.

Future priorities were considered, and rather than a final analysis at the end of the task, this took place after evaluating each component of fitness. It was evident that the candidate understood the training requirements, to not only compete at a higher level, but to rehabilitate from her injury.

Overall, the candidate has offered a piece of work that demonstrates an outstanding level of understanding.

Mark band 5: 10/10

Technical Analysis

An appropriate core skill in the form of a hurdle clearance has been identified for the purpose of this task (although the candidate should state this at the start of the task). There were photos of the candidate and an elite performer performing the skill through all three phases, which were presented very well.

Analysis of each phase of the skill was completed with outstanding detail, with the presentations being both descriptive and analytical. The information contained in the annotated images showed a very good analysis of the technical detail for each of the phases and all included references to key muscle groups, movement and muscle contractions.

The technical work was accurate, and the candidate was able to justify findings with current research when comparing her technique to an elite hurdler, with some of the key areas for improvement discussed. The level of qualitative data used by the candidate in analysing her strengths and weaknesses supported and justified some of her conclusions (e.g. lowering

CoM by flexing the trunk closer the knee to reduce air resistance; and bringing her arm down quicker when clearing the hurdle to maintain running velocity).

Overall the candidate has offered a piece of work that demonstrates an outstanding level of understanding, however the overall word count has not been adhered to due to the amount of words used in this section. The words included in textboxes were not added to the overall tally, which equates to approximately 450, and were not assessment.

Centres are reminded that any words included in textboxes that are that of the candidates, will be counted as in the overall tally.

Mark band 4: 8/10

Planning

As a result of the physiological performance analysis task, the candidate initially wanted to develop her accelerative speed, however due to her injury she has decided to develop a rehabilitation programme, using the specific principles research from an external source.

A clear aim was specified (30m sprint test in 4.60 seconds) with the targets being analysed using the SMARTER principle. Consideration for the unique nature of the injury was accounted for, with a clear analysis of the surgeon's advice and contemporary research with regards to the difficulties associated with proprioception and neuromuscular control in recover times for this injury.

The use of functional stability training, resistance and plyometric training was included with relevant references to appropriate literature link to rehabilitation. Specific intensities were included, with evidence of progression throughout the 10-week PDP.

Greater analysis of the application of the principles of training could have been included, however there was some reference to avoiding over training to reduce the risk of re-injury. Also, the training logs included were very detailed and demonstrated the application of the research conducted in the planning and included both mid and post fitness tests that were used to monitor progress throughout the PDP.

The candidate has demonstrated an outstanding level of knowledge & understanding in planning a rehabilitation programme.

Mark band 5: 9/10

Review and Evaluation

The candidate has reviewed the results of a variety of fitness tests (hop tests, squats etc) in comparison to pre-, mi- and post results, offering possible reasons for improvement as a result of certain adaptations (e.g. *This is a significant increase and should have caused a dramatic increase in the ability to recruit more muscle fibres and at a faster rate*) with reference to external research.

Conducting the PDP has had clear benefits to the candidate's rehabilitation progress which was made clear with her overall evaluation. Future recommendations in the form of gaining confidence and psychological preparation are very relevant to re-introducing athletes back into a competitive setting, and this was supported by various studies.

Although the detail provided within the evaluation was relevant, more depth of information with regards to the application of the principles and methods of training would have consolidated top marks for this section.

Mark band 5: 9/10

Overall the candidate has produced an outstanding PDP in difficult circumstances and has been awarded an overall mark of **36/40**.