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BTEC Level 3 Nationals in Sport and
Exercise Science
Unit 3: Applied Sport and Exercise
Psychology (31815H)



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Grade Boundaries

What is a grade boundary?

A grade boundary is where we set the level of achievement required to obtain a certain grade for the externally assessed unit. We set grade boundaries for each grade, at Distinction, Merit, Pass and Near Pass.

Setting grade boundaries

When we set grade boundaries, we look at the performance of every learner who took the external assessment. When we can see the full picture of performance, our experts are then able to decide where best to place the grade boundaries – this means that they decide what the lowest possible mark is for a particular grade.

When our experts set the grade boundaries, they make sure that learners receive grades which reflect their ability. Awarding grade boundaries is conducted to ensure learners achieve the grade they deserve to achieve, irrespective of variation in the external assessment.

Variations in external assessments

Each external assessment we set asks different questions and may assess different parts of the unit content outlined in the specification. It would be unfair to learners if we set the same grade boundaries for each assessment, because then it would not take accessibility into account.

Grade boundaries for this, and all other papers, are on the website via this link:

<http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx>

Unit 3: Applied Sport and Exercise Psychology

Grade	Unclassified	Level 3			
		N	P	M	D
Boundary Mark	0	11	22	35	48

Introduction

This was the first series of the new specification, and therefore, the first time that this unit has been externally assessed via a task rather than centre based internal assessment. Centres have prepared their learners exceptionally well for this task based assessment and should be congratulated for their ability to adapt to the assessment mode. It is likely that this was the first time that centres and learners had been exposed to a case study based approach and learners were generally well prepared and able to write coherently on many aspects of the specification.

The new specification for Sport and Exercise has seen two 60 GLH units moulded into one 120 GLH unit. There has been some new content with the introduction of concepts such as mindset, resilience and perfectionism as well as introduction of new theories such as the reversal theory of anxiety and self-determination theory of motivation. There is also an increased focus on self-confidence. There has been some content, such as personality theory, omitted to reflect the changes in research focus in sport psychology.

The question paper followed the format identified in the sample assessment material with a case study split into two parts, one part which is seen and one part which is unseen. There are three activities based on the case study each of which is marked using a levels based approach, where the overall quality of the response is considered rather than identifying individual marking points.

Introduction to the Overall Performance of the Unit

As this was the first time that learners had undertaken his type of assessment it is fair to say that the performance of learners was impressive. While there was a wide spread of marks, there were learners who consistently accessed marks in the top grade band as well as some learners falling into the low grade band. Most learners accessed marks in the middle grade bands. Most learners could organise their time to read, digest and analyse the second part of the case study and then produce lengthy written answers in the two hours of allocated time.

Generally speaking, learners found that marks were more accessible in Activities 1 and 3 where they could accurately identify factors and interventions, and then explain or justify them. Activity 2 asked learners to identify relevant theories to account for the athlete's experiences, then explain the theory and show how it relates to the athlete's experience. This is a more difficult task and is more demanding on the learners' skills.

Individual Questions

Activity 1

In this activity learners had to interpret how psychological factors were impacting on Eva, the athlete in the case study. To do this activity well, learners had to read the two parts of the case thoroughly and draw out the relevant information and then produce an extended answer. This involved three stages which made up the three traits of the levels based mark scheme. Firstly, they had to identify specific psychological factors that were impacting on Eva; secondly, using the content of the case study show the impact/effect each factor was having in each section and thirdly interpret the effect of each factor as being positive or negative.

Good responses made significant and continual references back to the case and showed the examiner that they were clear about how each factor was impacting on Eva. In this case study the psychological factors that had most relevance to the case study were as follows:

Self-confidence

Self-efficacy

Growth and fixed mindsets

Stress and its effect

Anxiety and its effect

Learners also made significant reference to motivation and changes in motivation from intrinsic motivation to amotivation. While this was deemed creditworthy it was seen as being a generic factor rather than a specific one, as were references to resilience. A minority of learners referred to aggression and positive mindsets and these were not given credit. It was expected that learners identified and explored the effect of 3-4 psychological factors in their answer.

Learner's responses were marked by gaining a mark in one of three grade bands:

Grade band 1: 1-5 marks

Grade band 2: 6-10 marks

Grade band 3: 11-15 marks

Taskbook

Please do not write answers outside the spaces provided.
You must complete ALL activities in this taskbook.

Activity 1

Interpret the psychological **factors** that impact on Eva in both parts of the case study.

(15)

There are many psychological factors that impact Eva both positively and negatively in all parts of the case study. ~~Some of~~ These factors are self-confidence, growth mindset, anxiety, stress, arousal and self-efficacy.

In part A of the case study Eva shows clear signs of someone with a growth mindset. An individual with a growth mindset is hard working and embraces challenges as well as the result of good performance is due to practice rather than talent. In the case study it is stated that Eva is successful because of the time and effort she puts into her training. It also states Eva constantly challenges herself to improve. These are both clear examples of an individual with a growth mindset and a positive mind, which Eva is both doing. However, in part B Eva is impacted negatively by this factor due to a

minor injury. In the case study it is stated that Eva is holding back from ~~putting~~ sprinting at full speed. This shows Eva isn't putting her full potential and all into her practices 2 weeks before her championships and not working ~~to~~ as hard as she can or to her full potential because of her injury which lowers her perfect performance.

As well as Eva showing clear signs of an individual with a growth mindset she also shows optimal levels of self-confidence. The keywords in Part A 'believes' and ~~she~~ 'thinks' shows Eva's positive thinking towards the end outcome. The fact that Eva 'believes she fitter and faster than her opponents' ~~and~~ implies Eva has a optimal self-confidence level. Purely because she is feeling sure that she will achieve her goal and this will occur because ~~she~~ how Eva is thinking and believing will impact on her emotions which will then impact on her behaviour and because it's positive the outcome at the end will be. However, although Eva's self-confidence level is currently optimal that soon changes

negatively in Part B. Eva's self-confidence level goes ~~down~~ ~~down~~ ~~down~~ ~~down~~ ~~down~~ down and her levels of self-confidence & decrease ~~causing~~ causing doubts on herself. In the case study it is stated Eva is going to withdraw from the national championships as she believes she has no chance of winning. Not only Eva's self-confidence levels go down but her arousal levels go up & giving her a narrow attention span. The fact that she also 'feels sick and wants to go home' from her practice shows her arousal levels have gone over her optimal level and her level in her perfect performance has decreased which also has lowered her motivation and energy levels.

In Part A, Eva shows signs of being intrinsically motivated as she's in it because it makes her feel good about herself and brings her pleasure but due to the injury in Part B Eva's motivation levels drop along with everything else. Furthermore, her stress

levels were very positive and was a good example of an individual with eustress which is when it brings you excitement and gives you energy. In part B Eva's eustress turns into distress when she's 'very tense when running'. This is because her injury has become too much to cope with and ~~stress~~ tension has built up upon her.

Finally, in part A the last psychological factor Eva shows signs of is self-efficacy. This is shown in the case study when 'the race ~~was~~ starts she channels all her efforts into being successful.' This implies signs of self-efficacy because she's showing her expectations of success in a specific situation and that her expectations are high of herself to do well. However, in part B these expectations drop when Eva states she has no chance of winning.

(Total for Activity 1 = 15 marks)

This answer is done exceptionally well with an introduction that identifies the factors that the learner regards as being the most important. Then the learner takes each factor and expands on it by using the content of the case study to illustrate where and how each factor is impacting on Eva.

There is clear explanation of whether each factor is having a positive or negative effect and how the effect changes from positive to negative as the case study develops.

In this answer the learner has written about five factors in total, two of these factors (mindset and self-confidence) have been done in exceptional detail, while three other factors have been referred to in less detail. This answer does show breadth and depth of knowledge.

Taskbook

Please do not write answers outside the spaces provided.
You must complete ALL activities in this taskbook.

Activity 1

Interpret the psychological **factors** that impact on Eva in both parts of the case study.

(15)

Motivation underlines the behaviour, influences and choices an individual makes, Eva is intrinsically motivated. She trains hard to be successful in her competitions. In part A Eva is very self-confident, she believes that she can achieve her goals if she stays focused, calm and relaxed, Eva also has higher levels of self-esteem, she believes she is faster and better than her opponents. Eva has a growth mindset, she works hard and practices to become better and better*. In part B we can see that Eva lacks self-confidence since she has had a minor injury*, her levels of self-esteem drop and she believes she now has no chance of winning at nationals. Eva wants to avoid failure. In part B we can see that Eva has become extrinsically motivated, she doesn't want to compete.

because she will lose.* Athletes with a lack of self confidence tend to perform bad, this then creates anxiety where we can see in Eva's case that she begins to tense up when she runs and doesn't run at full speed.

Eva becomes more anxious now that she is not running to her best ability, her increase in anxiety will have an impact on her performance.

*Eva is Eustressed, she uses this positive stress to focus on her race and be successful.

This answer has strengths in that the learner has shown evidence that they have analysed and understood the case study. They have been able to identify 5 factors that impact on Eva and provide some basic information to show the impact each factor is having.

There is an attempt to explain the impact self-confidence and changes in self-confidence have on performance but all the other factors are explored in a superficial way. There is no reference to whether the factors are having a positive or negative impact on Eva.

Activity 2

In this activity learners had to apply psychological theories to account for Eva's experiences in both parts of the case study. This activity is reliant on the learners accurately identifying psychological factors in the case study and making links to appropriate theories. Once they had identified appropriate theories that could be used to analyse Eva's experiences they needed to show they can explain the key principles of each theory. Then they had to make a further step to show how the theory could be contextualised to understand Eva's experiences in parts A and B of the case study.

Good responses showed detailed coverage of at least two theories and less detailed coverage of one other theory with clear and coherent links to the case study and how it could explain Eva's experiences. There was often analysis of the extent to which the theory could account for Eva's experiences or reference to another theory that would explain it better. In this case study the theories with most relevance were as follows:

Vealey's multidimensional model of sport confidence

Bandura's self-efficacy theory

Multidimensional anxiety theory to explain the link between self-confidence and anxiety

Inverted U hypothesis, Catastrophe and Drive theories to show arousal-performance relationship

Dweck's mindset theory

Learners were also credited for reference to Need achievement theory, Achievement goal theory and self-determination theory.

Learner responses were marked by gaining a mark in one of three grade bands:

Grade band 1: 1-5 marks

Grade band 2: 6-10 marks

Grade band 3: 11-15 marks

To achieve a Band 3 response learners should cover two to three theories. Band 3 could be achieved by either covering two theories fully with accurate and in-depth coverage or provide more breadth by covering three theories less fully. The most important trait with each band was the trait covering how theories are applied to analyse the case study.

Activity 2

Analyse how psychological **theories** can account for Eva's experiences in both parts of the case study.

(15)¹² Act2

There are many psychological theories that link to the psychological factors that impacted on Eva in the case study in all parts.

Drive Theory (Hull 1943) says that increases in arousal will result in improvements in performance. In Part A, this theory is true when Eva's levels of arousal are optimal and has a optimal attention span. However, in Part B Eva's attention span becomes narrow and becomes highly aroused. Eva states that she 'feels sick' and wants to go home' from her ~~ps~~ practice which shows her arousal levels have gone over her optimal level and level in ~~per~~ performance has decreased. ~~That theory~~ Although this theory is true a better suited ~~the~~ theory would be the Inverted U Hypothesis.

In the Inverted U Hypothesis Theory, Yerkes and Dodson in 1908 stated increases

in arousal will lead to an improvement in performance but only until you reach your optimal point and that any further increases in arousal will result in a performance decrement. This theory is better suited and gives a better, more accurate interpretation of Eva. This is because in Part A Eva's arousal levels were stable because she had reached her optimal level however, soon changed in Part B when she got her injury and started to doubt herself causing her arousal levels to go up into a narrow attention span and her performance levels to go down.

Vealey's self-confidence theory said the 3 ~~layers~~ ~~first~~ first layers of the model indicate and influence how an ~~athlete~~ athlete feels (affect) thinks (cognitive) and behaves (behaviour). Layer 1 is factors influencing sports confidence which include age, gender and personality. In Part A it is stated Eva is the 'fastest sprinter in her ~~and~~ country for her age group.' Already Eva's self-confidence levels are high because of this stated quote from

The case study cause it shows Eva is very good for her age and she believes she is which is why she's in that ~~the position~~ position and has optimal levels of self-confidence. Layer 2 is sources of sport confidence which includes mastery (current level of ability), self-regulation (physical/mental preparation) and social climate (support from coaches). Eva's mastery is high because she is the fastest sprinter in her age group which immediately brings her self-confidence up. Eva's self-regulation of herself is high because of the 'amount of time and effort she puts into her training' physically in part A and mentally from 'is on the track waiting for her race to start and doesn't talk to her opponents'. This shows not only is she preparing herself mentally ~~up~~ by focusing but that self-confidence is ~~good~~ at a good level. Lastly, ~~her~~ her social climate from her support of coaches ~~is~~ is high because throughout part A he ~~said~~ said 'he thinks she's successful'. ~~is~~ Even in part B when Eva starts to

doubt herself he suggest she goes to
a psychologist for help. Layer 3 includes
making decisions and maintaining focus. In
part A Eva maintained focus by not
talking to her opponents ~~but~~ before her
race to prevent coming distracted.

(Total for Activity 2 = 15 marks)

This response sits in the lower end of Band 3. The learner has chosen three relevant theories, in particular the Inverted U hypothesis and Vealey's multidimensional self-confidence model. Drive theory and Inverted U hypothesis are explained well and applied appropriately. Vealey's multidimensional self-confidence model is explained well but the application is superficial. This is a complex theory to cover so credit is gained for this good attempt.

This answer takes most of its content from Part A of the case study, which is the seen part, and there needs to be a more equal balance between Parts A and B to provide a full answer.

therapy. back to the self-determination theory which relates to different types of motivation. I don't think her motivation changes as she's still an intrinsically motivated person but I do think she becomes less motivated as she doesn't believe she can achieve.

Q. I also think that her mindset doesn't change as she's more affected by her self-confidence and self-efficacy.

With all the other theories in mind I will say I feel that the Achievement goal theory may relate to her as at the start she ^{isn't} ~~is~~ very ego oriented but she is very task oriented as she wants to master the skill well. ~~but at the end she is~~

In this answer the learner identifies five theories that have relevance to the case study and all are appropriate to explain Eva's experiences. However, there is virtually no explanation of the key principles of each theory. The learner has attempted to use each theory to explain Eva's experiences but there is a lack of clarity and accuracy in the explanations.

Activity 3

In Activity 3 learners had to focus on Part B of the case study as this is the section where Eva experiences changes in her psychological state due to the impact of her minor injury. She suffers a decrease of self-confidence, an increase in arousal levels and increases in cognitive and somatic anxiety. Because of these factors her performance changes and she decides that she does not want to compete at the national championships.

Learners needed to recommend psychological interventions that would address Eva's psychological needs and then use the content of Part B to justify why these interventions were appropriate. Once interventions had been identified learners needed to outline why this was important for Eva, demonstrate their knowledge of the key principles of each intervention and explain how the interventions can be practiced and used for performance. For example, if a learner chose to discuss progressive muscular relaxation they would have to say that they would practice the technique every day for a week and then use it to control arousal levels immediately before or during a competition/match.

Due to the high weighting of this activity within the paper, it accounts for 50% of the marks, it was expected that learners would cover four to five interventions and provide detailed information on at least three interventions. The interventions that were most relevant to the case study were as follows:

Imagery and self-talk to increase self-confidence

Relaxation techniques (PMR, imagery, breathing control and use of music) to control arousal levels

Goal setting to influence motivation

Performance profiling was also covered by many learners and while it had some relevance it was not as good a choice as imagery and self-talk. Some learners used well-known sportspeople as examples of people who used psychological interventions and how they used them. This was not credit worthy as it had no relevance to the case study being analysed.

Learner responses were marked by gaining a mark in one of five grade bands:

Grade band 1: 1-6 marks

Grade band 2: 7-12 marks

Grade band 3: 13-18 marks

Grade band 4: 19-24 marks

Grade band 5: 25-30 marks

Activity 3

Recommend psychological **interventions** to address Eva's needs in case study part B.

In your answer you should justify any recommendations made and explain how the interventions would be implemented.

(30)

In part B, Eva's coach suggests that she should visit a sports psychologist. When visiting a sports psychologist, there is many interventions they can put in place to help control and improve an athletes sports performance.

Firstly, the most sufficient psychological intervention to help Eva get back to being successful would be Progressive muscular relaxation (PMR). PMR helps reduce tension within the body and decrease arousal levels. This can be helpful for Eva as she was very tense when running and not sprinting at full speed. PMR involves tensing and relaxing muscles groups 1 by 1. Eva can tense her muscles for 5 seconds and then releasing for 5 seconds, followed by a deep breath. She should repeat this strategy until all muscles have been tensed and relaxed. She should begin with her hands and arms, then proceed to her upper body and her head, and finally her lower body. When she has completed this and feels fully relaxed she should understand the feeling of being relaxed and be able to identify

when she is tense. By completing this process / session of PMR several times, Eva should be able to relax her muscles and get rid of the tension in her body quickly. PMR can be used at any time by the athlete such as when arousal / anxiety levels become too high during a performance or even during a break. For example, Eva can use this PMR technique at the beginning of her race to feel fully relaxed and get in the zone before she starts sprinting.

Following on from PMR, a good relaxation technique is breathing. When Eva experiences high arousal and anxiety levels her breathing would become short and shallow. By taking time to focus on her breathing, she would be able to control it and release tension by breathing out. This breathing technique can be used for tense times during a game or during breaks. In Eva's case, she could focus on her breathing at the start of her race so she feels in control and focussed on winning. There are both Physiological and Psychological benefits from concentrating on her breathing. The physiological benefits include more O_2 being transported around the body by the blood to the working muscles which will remove CO_2 and waste products such as lactic

acid which will reduce the chance of muscle fatigue. Psychological benefits include improving her ~~focus~~ concentration, and focus away from any negative thoughts. It will also improve cognitive anxiety. Improving O_2 levels in Eva's body will give an advantage against her opponents as she will not experience muscle fatigue and will feel fresh before beginning her sprint.

Next, goal setting can help improve Eva's confidence ~~at~~ and motivation. Goal setting is a combination of short, medium and long term goals. A series of short and medium goals make progress towards a long-term realistic goal. If an athlete has short/medium goals, they must make continuous progress if they want to reach their long term goal. Short term persists of 1 day to a month. Medium consists of 3-6 months and a long term goal is set to be achieved at an end of a season or build up to a big competition - for example the Olympics (4 years). SMARTS targets also help athletes improve their motivation to succeed after setbacks such as Eva's injury. They allow athletes to focus on the road to recovery and goals need to be progressive and linked after each session. (Specific, measurable, action-oriented, realistic, timed and self-determined) targets all come together

to make an athlete goal realistic in a time period, measurable by time / distance and the athlete needs to feel intrinsically motivated and want to succeed themselves. For example, after Eva having a setback due to injury, she could set a ~~SMART~~ SMARTS goal such as wanting to become the fastest ^{100m} sprinter at the national championships within the next year. This target is specific to her sport (100m sprint), can be measured by timing how fast she runs, it is realistic as she is the fastest in her county for her age group, and it has a time period it wants to be achieved in.

Positive - self talk is another psychological intervention that a psychologist can use for Eva to succeed in sport again. Positive self talk is highly linked to motivation and aims for an increase in energy. Cue words can be used to help motivate the performer and are usually spoken to themselves or written on their hand. It can guide attention away from the negative worries and can control arousal. Positive phrases such as 'you can do this!' direct negative aspects of the athlete's performance that can cause anxiety or high arousal during a game/event. Positive self talk commonly occurs during training or prior

to a game / event to intrinsically motivate a performer. Eva could write on her hand a positive phrase such as 'You are the best' to remind her she is the fastest in the county and that she has the capability to win a race. She can also repeat this positive phrase during training to make her want to do well and train hard to succeed in races.

Another psychological intervention would be imagery. This is when images are created in the mind and visualised by the athlete. They create visuals of what they can see when competing, auditory of what they can hear when competing and kinaesthetic of what they can feel when they're competing. Eva can hear the start pistol, cheers of the crowd.

This answer covers five psychological interventions; four of the techniques are done in detail and one is just touched upon. Each technique has coverage of the key principles explaining how it works, detailed coverage about how it should be practiced and then implemented in competition. The chosen interventions are appropriate for Eva and well justified by the learner.

The learner has been able to illustrate in-depth knowledge of the principles behind all techniques. For example, when discussing goal setting they have covered short, medium and long term goals and given examples; they have also covered SMARTS and explained each letter of the acronym.

Activity 3

Recommend psychological **interventions** to address Eva's needs in case study **part B**.

In your answer you should justify any recommendations made and explain how the interventions would be implemented.

(30)

The first recommended psychological intervention is ~~self talk~~ 'Goal Setting' to help with motivation. The reason for this is that effective goal setting is effective for motivation. Goals should include short term, medium and long term. Eva should come up with short term and medium term goals that are helpful to herself through her injury so she can take part in the race so the long term goal is more achievable. *

The second recommended psychological intervention is 'Self Talk' to help with confidence levels. Self talk is used by a lot of athletes to help themselves mentally and physically. It is a psychological skill that improves learning and increases performance and motivation. Positive self talk is a very key factor to become more motivated and increase energy levels.

The third recommended psychological intervention is 'progressive muscular relaxation' to relieve stress. This technique is very helpful to overcome stress and feel more free as you are relaxing. This technique consists of tensing and relaxing different muscle groups around the body.

Tense for 5 seconds then release and relax for 5 seconds which is then followed by a deep breath.

Eva should repeat this several times to relieve her stress and feel more healthier.

* Goal Setting -

- Mastery goals, focus on self challenge and improvement.
- Do not make any comparisons to other athletes - you should only focus on setting your own goals.
- Mastery goals are better for enhancing motivation as it will help Eva be more in control of her own goal (whether it is achieved or not).

The last recommended psychological intervention is ~~image~~ 'Imagery' to help with Self-efficacy. The reason Imagery is a good source to help with self-efficacy is because Eva can create images in her mind and believing that she can do it. This will show the self belief that Eva has in herself to come back from the injury stronger and better.

This learner has also recommended five interventions for Eva and they have given some basic information about why they selected each intervention. There is a small amount of coverage of the key principles behind each intervention but the information is basic and there is little expansion. There is no appropriate information about how the intervention could be used in sporting situations.

Summary

- Read the case study several times, highlight the key content and identify which psychological factors are being covered
- When answering questions refer to the case study as much as possible and make sure that the content you refer to is actually in the case study
- Draw information from both parts of the case study when asked to in the question
- Be selective about which theories and interventions you cover and make sure they are the most relevant for the answer
- Use the assessment criteria for each activity to guide you and ensure you cover all the content needed for each activity
- Always be relevant to the case study and avoid references to other sportspeople
- Be clear about the content of the unit specification and avoid coverage of content not on the specification eg, personality
- Please click [here](#) for the specification and SAMS

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