

Human Performance Past Exam Paper Example with Indicative Answers (Jan 2017)

General Comments on Exam scripts:

At level 6 you should avoid purely descriptive answers to the questions, instead you should be providing critical and evaluative answers. You must engage with primary sources and ensure you answer the specific question being asked. Do not simply produce broad accounts of the general topic area of the question. You should also have developed a solid academic writing style. It is understandable that under exam conditions the answers produced may not be to a similar standard as those of an essay, where you have plenty of time to reorganise and amend your work (and this is taken into consideration when the exams are being marked) but there should still be coherent sentences produced in order for the examiner to understand what information you are attempting to convey. Ensure you include an introductory paragraph setting-up what your essay will be discussing and include a concluding paragraph to wrap everything up. Ensure all information in your answers directly relate to the questions.

Now to the specific questions and indicative answers →

Q1. Can anyone become an expert performer? Critically discuss this question.

This should have included information relating to theories of skill acquisition and models that have been developed to investigate this. It was also expected that students would include information on individual differences in learning and ability. It would be up to the student if they wished to focus their answer around a particular type of performance or discuss how different types of performances require someone to possess certain abilities. Other factors such as motivation and external influences could also have been included. Students could also discuss whether expert performance is innate or developed. What was critical for answering this question was that students evaluate any theories/models presented and also provides solid discussion of empirical studies that have been conducted to examine expertise.

Q2. Critically evaluate the extent to which research into artificial intelligence can be used to explain and understand human performance.

Answers to this question would have needed to give an account of what is meant by artificial intelligence research, this would include the development of models, any technology used, machine learning, etc. Then, it was expected that students move on to present empirical studies and critically evaluate whether the outcomes from these studies can tell us anything about human performance. Students needed to be able to appreciate how any similarities between humans and machines has led to AI research but also how humans and machines differ – with a particular discussion centred on consciousness. Suitable criticisms with backing from empirical literature to show how research with AI may not be suitable to explain all aspects of human performance would also be needed.

Q3. Critically evaluate theories that attempt to explain burnout and fatigue in high sustained-attention occupations.

For this question, students were expected to very briefly describe what is meant by high sustained-attention and provide examples of the types of occupations that require this type of focus. It was then expected that students provide information on factors that can influence sustained attention (internal and external) and theories of vigilance (inc. habituation, SDT). It

was also expected that students discuss specific information on any theories and empirical research to examine how/why people with these types of occupations burnout and experience fatigue. To do well in this question students would need to show an appreciation of how wider factors (e.g., practice) can also make a contribution and critically a very strong answer would have incorporated neuro-scientific research and a discussion of changes in the brain.

Q4. Critically discuss the impact that the ageing process can have on human performance.

A range of answers could have been included for this question as there is a wealth of research that examines the impact of ageing on performance. There were, however, two critical elements that needed to be included in order to produce good answers to this question: firstly, students needed to realise that the effect of ageing on performance influences both physical (e.g., sight/hearing) and psychological/cognitive functioning and provide a solid account of both. There is also the neuro-scientific evidence that could have been discussed to show both a physical change in the brain and how that manifests in cognitive functioning (e.g., reduced activity in hippocampus and impact on memory, N.B not all types of memory are effected in the same way, etc.). Secondly, students needed to show an appreciation that it is not always the case that ageing impacts on performance in a negative way – the improvements in old age or the lack of detriment should also have been discussed.

Q5. Critically discuss how we can attempt to reduce human error in the workplace.

At first glance this seems to be a relatively straightforward question, but the main issue was the fact that most students only discussed what human error in the workplace is and offered little discussion on attempts to reduce it. Most students discussed the Swiss cheese model but didn't explain how this relates to reducing human error. Elements to answer this question well could have included: organisational culture, system design, appropriate training, health and safety, fatigue management, avoiding long working hours, shift work, pharmacological interventions, bright light exposure, exercise, sleep contracts, understanding individual differences, personality, etc., etc., etc. Hardly any answers provided evaluation surrounding these elements, which were needed for good answers.

Q6. Critically discuss the ways in which researchers have attempted to explore the relationship between personality and performance.

A number of different personality types could have been included to answer this question, such as a discussion on extraversion and cognition vs. extraversion and real-world performance; anxiety and neuroticism, including various theories of anxiety and performance. Answers could have also included how personality links to occupational performance. However, what was critical for this question was that students showed thorough evaluation of the topic, both within the level of personality types – i.e., does some research suggest that extraversion leads to better performance while other research suggests it does not, but also an evaluation of the topic in the broader sense should have been included – i.e., some research suggests personality is related to performance while other research suggests it is not. Furthermore, an evaluation of the appropriateness of the methods used to examine this relationship should also have been included to achieve higher marks.