



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

Scholarship, 2004

Physical Education (93501)

National Statistics

Assessment Report

Assessment Schedule

Physical Education, Scholarship, 2004

General Comments

Scholarship candidates for Physical Education should be able to demonstrate the following:

Attributes

- Critically evaluate
- Demonstrate substantive biophysical or socio-cultural knowledge skills
- Draw on their own movement experiences.

Knowledge

- Thorough grounding in the subject
- Outstanding understanding of content knowledge
- Ability to make deductions: apply, integrate, and synthesise knowledge
- High degree of subject-specific literacy skills.

Physical Education Scholarship

National Statistics

Number of Results	Percentage		
	Not Achieved	Scholarship	Outstanding
153	100.0%	0.0%	0.0%

Assessment Report

For each question, there were examples of candidates who attained Scholarship; however, candidates were unable to sustain this performance throughout the paper.

Question One

Candidates who demonstrated Scholarship performance were able to:

- answer both sections with equal depth of knowledge and understanding
- provide a range of factors that contributed to the amount of physical activity that people undertake AND they were able to demonstrate how some of the factors interlinked
- provide evidence and were not restricted to 'generalised' comments.

Question Two

Candidates who demonstrated Scholarship performance were able to:

- articulate the difference between perceived and real risk
- provide both theoretical and practical examples of risk management
- use own examples to back up their points.

Question Three

Candidates who demonstrated Scholarship performance were able to:

- critically evaluate the apparent trend. This meant that they were able to provide a range of points of view, they recognised that some comments had come from a vested interest, and they questioned some of the assumptions
- see the trend as part of a 'broader concept of sport'
- draw on more than just rugby examples.

Question Four

Candidates who demonstrated Scholarship performance were able to:

- problem solve using biomechanical explanation
- acknowledge that there were constants – eg the height of both jumpers
- use information to disprove a possible action, recognise that some other explanation was required, and then attempt to problem solve using their biomechanical knowledge.

Question One

Candidates who did not achieve the Scholarship standard:

- did not read the question. In many cases there were some very good critical evaluations of why people did or did not take part in physical activity, but they had missed the crucial point that the critical examination needed to be about incidental activity in Part (a)
- provided a very thorough answer to either part (a) or part (b), but this thoroughness was not evident in both parts
- did not critically evaluate. They made generalised comments or assumptions without explanation of how or where the information came from. The assumption that any exercise will improve "heart health" without an explanation that heart rate MAY decrease – over time and with the required intensity and duration, and dependent on where the individual was at before they introduced the deliberate exercise.

Question Two

Candidates who did not achieve the Scholarship standard:

- were unable to integrate the theory and practical examples for risk management
- did not include any discussion of the principles of risk management.

Question Three

Candidates who did not achieve the Scholarship standard:

- provided many assumptions and generalisations
- did not critically evaluate. They often covered a range of comments and factors, but did not look at where the information had come from, why the comments might have been made, if there was any vested interest in the comments made, etc – the critical thinking and critical examination was missing.

There were a number of racist comments and assumptions.

Question Four

Candidates who did not achieve the Scholarship standard:

- did not read the question. They did not understand that there were constants, and discussed the difference in height
- provided incorrect information.

Candidates assessed as 'Not Achieved':

- lacked skills and knowledge
- lacked the ability to critically evaluate in unfamiliar situations
- answered from personal opinion rather than substantive socio-cultural knowledge
- struggled with subject knowledge
- could not differentiate between incidental and functional exercise
- lacked a depth and breadth in their discussion of risk management.

Note: In preparing for scholarship, candidates are advised to draw on their own context, but are reminded to keep the rigor of performance at scholarship level ie demonstrating a breadth and depth of substantive knowledge supported by their own learning experiences.

Assessment Schedule

Scholarship Physical Education (93501)

Evidence Statement

Question One: Physical activity and health

Evidence	Judgement
<p>The candidate critically evaluates the nature of contemporary societies and the implications on health of an active lifestyle.</p> <p>The factors reducing the amount of incidental exercise and underpinning the increasing nature of sedentariness in modern societies may include but are not limited to:</p> <ul style="list-style-type: none"> • The convenience lifestyle: <ul style="list-style-type: none"> – decreased need to expend energy to gather food and sustain life – growth and ease of use of the car as primary mode of transport. • Advances in technology: <ul style="list-style-type: none"> – proliferation of labour-saving devices – decreasing physical labour in occupational work. • Changing nature of leisure time activity: <ul style="list-style-type: none"> – growth of sedentary forms of entertainment, eg television, computers, computer games – the changing nature of work – shifting attitudes to leisure and work, eg more students working after school to afford lifestyle – cellphones, cars, university fees. • Changing societal policies and concerns: <ul style="list-style-type: none"> – increasing concerns for safety that lead to changed patterns of play and recreation – changing laws and policies that impact on the nature of incidental exercise – increasing government promotion of physical activity – changing barriers to exercise. <p>Hypokinetic diseases include:</p> <ul style="list-style-type: none"> • coronary heart disease (CHD) • cerebral vascular disease (CVD/Stroke) • diabetes/insulin resistance (through obesity) • cancer • musculoskeletal, eg osteoporosis. <p>The benefits of physical activity may include but are not limited to:</p> <ul style="list-style-type: none"> • biophysical aspects such as cardio-respiratory training effects, musculoskeletal training effects, body shape, neurological, endocrinological • sociocultural aspects such as psycho-social effects, enhanced feelings of well-being, stress reduction, self-esteem, social contact and cohesion. <p>The risks of physical activity may include but are not limited to:</p> <ul style="list-style-type: none"> • musculoskeletal injury associated with physical activity • sudden death (cardiac arrest) • impaired immune function • menstrual dysfunction • respiratory tract disorders (eg onset of asthma) • eating disorders • exercise addiction. 	<p>The question is focused on examining if the candidate can critically evaluate the sociocultural context of physical activity and the implications of an increasingly sedentary lifestyle for health. For scholarship, the candidate's answer must include consideration of why deliberate exercise is necessary within contemporary society and how the introduction of deliberate exercise may have both positive and negative consequences for health.</p> <p>For the first question, a critical evaluation needs to identify and explain the sociocultural or technological factors that are reducing the amount of incidental exercise in modern, westernised societies. For scholarship, the candidate must be able to identify and discuss a range of factors that underpin the growth of sedentary lifestyles in modern society. As a guide, at least four factors should be identified, but three may be valid in some cases, where there is an extensive coverage or depth of understanding of the three identified factors.</p> <p>For the second question, a critical evaluation needs to consider both the positive and negative implications that the introduction of physical activity may have for individuals. In the positive sense, the value that physical activity has as a preventative measure against hypokinetic diseases, and the benefits this has for health, must be identified. These benefits may be the result of introducing deliberate exercise, increasing incidental exercise, or both. The candidate must identify a range of benefits (across sociocultural and biophysical aspects) and discuss them in relation to their ability to offset the range of diseases related to a lack of regular physical activity (hypokinetic diseases). The candidate must also consider the negative implications of deliberate physical activity. The risks of physical activity should be identified and discussed.</p> <p>For Scholarship with Outstanding Performance the candidate response must demonstrate a high level of sophistication across a range of factors, including integration of ideas, original thinking, and fluent and precise communication.</p>

Question Two: The nature and management of risk

Evidence	Judgement
<p>The candidate: clearly evaluates the nature of risk and the principles of risk management as they relate to the statement.</p> <p>For a critical evaluation the candidate's response should:</p> <ul style="list-style-type: none"> • identify and clarify the issue within the statement • explain or offer an interpretation of the nature of risk • identify the principles of risk management • offer a critique of the statement • support the discussion with relevant examples. <p>Elements that can be considered in the critique include, but are not limited to:</p> <ul style="list-style-type: none"> • The nature of risk in physical activity: <ul style="list-style-type: none"> – definitions of risk and its relationship to other concepts such as danger, accident, adventure, safety and challenge – types of risk, eg perceived risk and real risk. • Factors associated with participation and risk-taking behaviour. Growth in variety and availability of risk-taking activities • Principles associated with risk reduction: <ul style="list-style-type: none"> – the use of rules, policies, and guidelines. Implementing BOT (OSH?) policies, industry guidelines, safety rules, laws, ratios – leadership competencies – style, skills and compliance with industry guidelines, experience, expertise, and contextualised understanding – instructional quality – knowing students, progressive development of skills, disclosure of risk. • The use of planning tools (eg SAPS and RAMS sheets): <ul style="list-style-type: none"> – identify potential risks / undesired events – identify causal factors, people, equipment, environment – develop appropriate management strategies. 	<p>The question is focused on examining if the candidate can critically evaluate the concept of risk and risk management in physical activity events and/or outdoor settings. For scholarship, the candidates must be able to demonstrate an ability to synthesise or integrate their knowledge of risk, and support this with informed views and/or relevant examples.</p> <p>For a critical evaluation, the candidate's response should identify and clarify the issue inherent in the statement. This may involve:</p> <ul style="list-style-type: none"> • challenging the assumption that it is risk that drives some people to participate in physical activities • adopting a position with risk management being equated to 'wrapping participants in cotton wool'. <p>The candidate's response must also clarify and discuss the nature of risk. For scholarship, the candidate must be able to distinguish between the concepts of perceived risk and real risk.</p> <p>For a critical evaluation, the candidate's answer should also be able to identify the principles of risk management and integrate them into a response that outlines a rationale for managing risk in outdoor settings. For scholarship, the candidate must be able to demonstrate knowledge of all the principles of risk management and be able to use relevant examples from their own experience to help illustrate the points being made.</p> <p>For Scholarship with Outstanding Performance, the candidate response demonstrates a high level of sophistication across a range of factors, including integration of ideas, original thinking, fluent and precise communication.</p>

Question Three: Reflecting on trends in physical activity

Evidence	Judgement
<p>The candidate: critically evaluates the changing ethno-cultural mix of participants playing sport in New Zealand. Responses should consider how the agency of the individual is influenced by and interdependent with the nature of sport in society.</p> <p>The key elements that can be considered in the critique include, but are not limited to:</p> <ul style="list-style-type: none"> • Biological factors – physical maturation and the role size and strength play in sports performance. An increase in the Māori and Polynesian population. • Identity construction – how the individual sees themselves and who they want to be. • Culture – the collective sets of values, beliefs, and practices that mediate the way individuals identify themselves and make sense of their worlds. • Time and opportunity to participate in contemporary lifestyles. Variations in leisure pastimes, access to resources and facilities, the increasing range of sports, expectations of success, familial support, etc, exist between different ethno-cultural groupings. The changing nature of the ethno-cultural composition of New Zealand society. • Social interaction. <p>Additional elements that influence the nature of sport in modern society and that may also be considered and referred to in the critique include, but are not limited to:</p> <ul style="list-style-type: none"> • Gender – changing cultural definitions of what it means to be masculine / feminine. • Commodification and commercialisation of sport – leading to an increased emphasis on performance and promotion as a form of mass entertainment. • Professionalism – providing a legitimate way to earn money for physical performance. Increasing time and physical demands on participants. 	<p>The question is focused on examining the candidate's ability to analyse a physical activity trend, especially as it relates to the participation practices of particular cultural groups within the conditions presented in late modernity. For scholarship, the candidate's response must include consideration of a range of appropriate factors and clearly explain the interdependent nature of these factors. The issue itself – that the cultural mix of participants is changing – must be seen as a complex relationship between the changing nature of sport within contemporary society and the factors that influence participation in sport.</p> <p>A critical evaluation would:</p> <ul style="list-style-type: none"> • Identify and clarify the issue under discussion. This may involve taking a position in respect to the issue. While biological factors may be considered (eg maturation), these should not dominate the evaluation. A critical evaluation should focus on the sociocultural nature of the issue. The trend may be analysed as one of increasing numbers of Māori and Polynesians playing sport, and / or decreasing numbers of Pākehā playing sport. The candidate may also question the construction of categories like Māori, Polynesian, and Pākehā. • Identify and integrate the broad range of factors involved in mediating sports participation in contemporary societies. Consideration needs to be given to both the changing nature of sport in society and the factors that influence participation in sport. For scholarship, a range of factors must be identified and explained. • Acknowledge the problematic and interdependent nature of the factors being discussed. The relationship between the nature of sport in society and the factors that influence participation in sport should be seen as complex and interdependent with a range of factors. <p>For Scholarship with Outstanding Performance, the student response demonstrates a high level of sophistication across a range of factors, including integration of ideas, original thinking, and fluent and precise communication.</p>

Question Four: Movement analysis

Evidence	Judgement
<p>The candidate critically evaluates the one-foot and two-feet jumping action and proposes a feasible explanation of why muscle activation and sequence would be different between the two.</p> <p>The biomechanical concepts that can be used to explain the differences between the two movements include but are not limited to:</p> <ul style="list-style-type: none"> • Transfer of momentum. At the point of take-off, the differences in the action may affect the transfer of momentum from approach to lift. • Impulse (including concepts such as force, force summation and power). If take-off speed and height attained are the same, then the musculature of one leg must be doing more than in the two-leg take-off (although not twice as much because of other possible differences). • Centre of gravity. Postural differences between the two actions will alter the position of the centre of gravity. In the one-foot take-off, the supporting leg will be swung up, raising the centre of gravity. The position of this leg will then influence the centre of gravity during the jump. • Body stabilization. Moving the body onto one leg requires postural adjustments. By abducting the supporting leg, the body becomes cantilevered at the hip. Postural adjustments are made to maintain balance and stability. <p>Additional elements that may also be considered and referred to in the critique include, but are not limited to levers and projectile motion.</p>	<p>The question is focused on examining if the candidate can undertake a biomechanical analysis of two similar movements and relate this to the neuromuscular activity of those two movements. For scholarship, the candidates must demonstrate an ability to compare and contrast two movement sequences by analysing the biomechanics involved, and then use this to generate a feasible explanation why the muscle activity between the two may be different.</p> <p>For a critical evaluation of the jumping action, the candidate must compare and contrast the two jumping actions by drawing upon biomechanical concepts to analyse the differences between the two actions. The candidate should assume from the scenario that particular factors remain stable between the two actions, such as weight of the player, speed on take-off, height attained in the jump, and spiking action creating contact force. With these constant, the analysis may then consider variations in transfer of momentum, impulse at take-off, centre of gravity (related to changing take-off postures) and skeletal stabilisation. For scholarship, the candidate should be able to integrate at least two biomechanical concepts into their analysis of the two ways of jumping.</p> <p>A feasible explanation of the muscle activity involved must relate the biomechanical analysis undertaken to principles of neuromuscular activity. Muscle activation sequence and magnitude is related to coordinating an intended movement while reacting to the biomechanical demands placed on the body by that movement. Differences between how the muscle activation is sequenced and the magnitude of that activation can be explained by the significant differences that exist between the two jumping actions. For example:</p> <p><i>In the two-feet take-off, the weight of the body is evenly distributed between the two legs, while in the one-foot take-off, the weight is borne on one leg, with the body now cantilevered over the hip joint of the jumping leg. These differences are initiated and sustained by different muscular activity. The sequencing of the muscular activity will change because of the postural differences. For example, the hip muscles, particularly those involved in abducting the leg, will be activated differently in the one-foot take-off, because the weight of the body must now be supported on one leg. Similarly, the magnitude of the activation will be different because only one leg is being used to generate lift, instead of two.</i></p> <p>For Scholarship with Outstanding Performance, the candidate response demonstrates a high level of sophistication across a range of factors, including integration of ideas, original thinking, and fluent and precise communication.</p>