

Physical Education

2015 Chief Assessor’s Report

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## Overview

Chief Assessors’ reports give an overview of how students performed in their school and external assessments in relation to the learning requirements, assessment design criteria, and performance standards set out in the relevant subject outline. They provide information and advice regarding the assessment types, the application of the performance standards in school and external assessments, the quality of student performance, and any relevant statistical information.

## School Assessment

Assessment Type 1: Practical

Teachers were generally well prepared for final moderation (on site) of Assessment Type 1: Practical and recognised that student performance needed to be sighted in two centrally developed practicals. Most teachers had prepared appropriate methods for moderators to easily identify students. It is recommended that all students wear a numbered and/or coloured bib for this purpose. To further support the identification of students some schools also provided the visiting moderator with a class list on arrival with the identifiers marked on it. This is strongly encouraged for 2016.

Teachers are reminded that all official paperwork — school assessment results sheet (mauve) and specific skills criteria sheets — for each student for all three practicals (including class negotiated practicals), must be completed prior to the start of moderation. It is essential that the mauve results sheet is signed by the school principal (or appropriate delegate) prior to the start of moderation. The original mauve results sheet should be given to the moderator; if the school wishes to keep a record of the information they should retain a photocopy.

A ‘Variations — Moderation Materials’ form must be completed and provided to the moderator if:

* a student is injured or ill on the day of moderation (with supporting medical documentation retained at the school)
* a student has been unable to complete a practical and special provisions have been granted by the school, where appropriate grounds for special provisions exist.

All medical documentation must be retained by the school until the end of the clerical check period in February of the following year.

Teachers are encouraged to carefully review and consider the overall grade allocated for Assessment Type 1: Practical prior to recording the grade on the mauve results sheet. All three practicals are to be evenly weighted and the overall grade is to be determined holistically. Teachers are reminded that a grade level is to be allocated (+, mid-grade, –), not just a grade band (A, B, C, etc.). The use of grade levels allows for greater differentiation of student achievement. Moderators cannot amend the achievement order determined by the teacher even if it is evident that some students are performing at a higher level than others on the same grade. This applies for each of the three practicals, as the grade levels achieved for each practical individually can affect the overall grade.

In most cases, teachers are now familiar with the need to offer a balance of centrally developed practicals with many completing similar practicals to those in previous years. Volleyball, touch, badminton, and netball continue to be popular centrally developed practicals, while aquatics and lawn bowls are the most popular option for the third practical.

Teachers are still encouraged to carefully consider and select practicals that are suitable for the majority of students in their classes to cater for students’ abilities, and select a balance of practicals that is equitable to all. In addition, schools also have the option of applying special provisions for individual students where appropriate grounds exist. The class teacher will need to organise an opportunity for the student to learn the varied practical option (if this provision is approved), and will also need to make the assessment decision based on the achievement of the student. However, these students may need to have their varied practical viewed at moderation if it is replacing one of the two centrally developed practicals that the remainder of the class will undertake at moderation.

Teachers who submitted their preferred dates for Assessment Type 1: Practical by the due date supported the appointment of moderators. This information, along with the name of the teacher and the three practicals that the school intends to teach should be submitted to the SACE Board *electronically via the website* for each assessment group. Adherence to the key date for submission early in 2016 is essential.

Where teachers chose a third practical that was not on the list of centrally developed practicals (see ‘Guidelines for Selecting Practicals’ on the Physical Education minisite), schools were able to submit an application to have a class negotiated practical approved.

Teachers are reminded that it is expected that students undertaking this course will complete three practicals throughout the year. Special provisions cannot be granted to students who begin the year with a significant injury that restricts their involvement in the practical assessments. In these circumstances, students should be counselled to consider alternative subjects.

Teachers are reminded to refer to the subject operational information on the Stage 2 Physical Education minisite for information on when to submit the form for Preferred Dates for Final Moderation (on site) — Assessment Type 1: Practical and other key dates.

Students performed well in the practical component of the course with the majority achieving in the A and B grade bands. The most successful students demonstrated a high level of proficiency in the performance of physical activities with accurate interpretation and application of skills, concepts, strategies, and tactical awareness in practical applications. Initiative, self-reliance, leadership, and ability to demonstrate constructive collaboration in team situations were also evident.

Teachers need to be aware that students who consistently perform and demonstrate specific features in the upper range of the A grade band across the three practicals could expect to achieve an A+ grade overall. As stated in previous years, students do not need to perform at ‘state level’ to achieve an A+ grade in a practical. However, a highly consistent and sustained level of performance across all of the specific features being assessed is expected.

When making a final judgment on the overall grade for a student for a practical it is recommended that teachers refer to the specific skills criteria for each centrally developed practical, which can be found in the ‘Centrally developed practicals’ menu on the ‘Subject advice and strategies’ page of the Physical Education minisite. Students need to demonstrate many more skills in order to meet the assessment design criteria Practical Skills Application (PSA) than they need to demonstrate to meet the assessment design criteria Initiative and Collaboration (IC).

There continued to be evidence of some confusion regarding the specific features of IC. In some instances, students who were compliant, helpful, and enthusiastic were awarded a grade in the A band. However, these behaviours only address specific feature IC2. Teachers are asked to consider whether students have also addressed the specific feature IC1. This includes the ability to lead and direct peers and themselves both directly and indirectly during the course of a game and during practice sessions. Teachers are encouraged to provide opportunities for students to demonstrate their ability in this specific feature during lessons.

Teachers are reminded that students should be assessed against the performance standards and not by the number of hours completed. A student who has had significant absence from a practical unit may still be able to demonstrate a proficient level of performance.

Teachers are encouraged to continue to access and use support material documents such as checklists of individual performance indicators, which are available for a number of sports on the ‘Subject advice and strategies’ page of the Physical Education minisite, to assist with assessment decisions. Teachers are also strongly encouraged to ask colleagues to assist with internal moderation processes prior to on-site moderation, in an effort to ensure accurate assessment against the performance standards. When support within the school is not available, teachers are encouraged to complete an informal moderation with other schools and teachers who may be geographically close and/or completing the same practicals.

Schools with multiple classes and/or schools that have combined two or more classes into one assessment group are strongly encouraged to ensure inter-class or inter-school moderation/assessment has occurred prior to external moderation. This internal moderation/assessment ensures consistency between classes and teachers, and is also an excellent way for teachers to develop their understanding of the performance standards.

Teachers are reminded that they are not to coach their students during the moderation process, and/or look to influence the moderator in any way. Teachers are welcome to umpire games, but any coaching or tactical guidance during this time is deemed inappropriate and compromises the moderation process.

It is expected that all moderation materials will be available when the moderator arrives at the school. Please allocate a quiet place for the moderator to carry out the moderation sample selection and consider any other information prior to viewing students’ practical work.

Where schools have multiple assessment groups (i.e. more than one mauve sheet), it is important that each assessment group is moderated independently. Moderators will not view multiple assessment groups at the same time. For schools with multiple assessment groups, a minimum of 2 hours should be allocated for moderation of each assessment group. Please ensure that the number of assessment groups is provided when submitting the preferred dates for moderation.

Assessment Type 2: Folio

Most schools included student work for final moderation (central) in the correct manner; that is, the work of each student selected for moderation was packed in an individual clear plastic bag clearly identified with the appropriate SACE registration number. The inclusion of task sheets and shaded performance standards for each response is strongly recommended.

Schools are reminded that a copy of each folio assessment task and a current and accurate learning and assessment plan (LAP) (with the addendum indicating any changes to the approved LAP) is to be included in the package for each assessment group.

A ‘Variations — Moderation Materials’ form must be included for students who have been nominated for the moderation sample but have not completed the assessment tasks described in the LAP and have been granted special provisions. It is also a requirement that this form is used to provide clear information to the moderators about work that has not been submitted by a student, or information about student work that has been marked and then lost. Student results could be at risk if clear information about the reasons for a set of materials being incomplete is not provided.

It is recommended that the specific features indicated for each task within the LAP are checked by the teacher and accurately recorded on each task sheet. Teachers are reminded that at least one folio task must address specific feature PSA2 and that they must use the most current performance standards when assessing student work. Specific feature PSA3 has not been in the subject outline for several years; however, it was apparent at moderation that some teachers were still using performance standards tables that include this specific feature.

Teachers must take care when they submit student folio results via *Schools Online* to ensure no errors are made when allocating a grade for each student.

Teachers are reminded that in the absence of approved special provisions, any task that has not been submitted should be allocated an ‘I’, not an E grade.

Schools presented folios with a range of between three to six tasks to address the performance standards. Some schools continued to present in excess of six assessment tasks and/or had multiple assessments within one task. This is inappropriate.

Teachers must ensure that a minimum of two assessments are integrated tasks. The integrated tasks should incorporate the knowledge and skills developed in practical activities with the knowledge of the terms and concepts covered under ‘Principles and Issues’ in the Stage 2 Physical Education subject outline. The minimum requirement for folio assessment is two integrated tasks and one issues analysis.

Integrated tasks should be a maximum of 1000 words if written or a maximum of 6 minutes for an oral presentation, or the equivalent in multimodal form. It is recommended that teachers require students to indicate the word count on their responses. The issues analysis does not count as one of the integrated tasks; however, it also has a 1000 word limit.

Some students continue to exceed the word limit. Teachers must ensure that word limits are adhered to. Moderators stop reading once they reach 1000 words.

Teachers are encouraged to attach task sheets and performance standards to all individual student work to enable moderators to confirm teachers’ assessment more readily.

If students choose to complete an assessment task electronically or orally, there must be accompanying evidence provided for moderation, such as a script, recording or hard copy of the presentation.

The quality of task design showed improvement this year, which is really pleasing. The quality of task design affects the quality of work the students can present and their ability to address the specific features of the assessment design criteria. For some schools this is still a significant issue. It is important that teachers design tasks that allow students opportunities to demonstrate their understanding in all the specific features being assessed.

The specific features CAE1 and CAE2 continue to be the most poorly addressed. Tasks incorporating these features must provide the opportunity for students to interpret, analyse, and evaluate information from a sport and/or practical activity. Terminology such as ‘list’, ‘define’, and ‘describe’ do not allow students to demonstrate in-depth knowledge and analytical skills. Poor question design often lead to students regurgitating information (often straight from a textbook), with no opportunity to demonstrate critical analysis skills or knowledge. Better tasks encouraged students to compare performance and data between elite and novice performers and/or reflect on and evaluate the validity of a particular training prescription against a set of data or type of athlete.

Integrated tasks that had many questions also limited the student’s ability to demonstrate a depth of knowledge about, and complex understanding of, a particular concept. It is recommended that the number of questions for an integrated task be limited to 2–3. If teachers wish to cover a greater number of theoretical concepts within a task, then they should provide students with a non-integrated task that isn’t constrained by the word limit. It is acceptable to include a non-integrated task within the folio as long as the folio includes at least two integrated tasks and one issues analysis. A number of schools successfully implemented this in 2015.

Teachers are also advised to carefully consider how to design a task that asks students to design a training program. Much of this information can be easily accessed online, which increases the risk of plagiarism. Such tasks should stipulate that students design programs for a specific athlete, type of athlete, or student, thereby encouraging the application of knowledge, as well as providing opportunities for critical analysis and evaluation of that program.

Many teachers continue to use tests and trial exams as assessments in the folio. Many tests did not allow for critical analysis and evaluation, focusing more on knowledge and understanding of terminology. While testing students under timed conditions is important preparation for the external examination, teachers have the option to use these as formative tasks. They do not need to be included in the folio and teachers are encouraged to consider limiting their use or removing them from the folio altogether.

If tests are included in the folio the questions need to be designed to allow for analysis. The use of extended-response questions can be useful in this situation. The use of multiple-choice and true/false questions does not provide students with the opportunity to demonstrate critical analysis skills. These questions should not be included in tests that form part of students’ folio.

Tests should not be used as integrated tasks and using timed integrated tasks can significantly disadvantage students. If students are likely to perform better in an assignment where opportunities for feedback and drafting are available, then teachers are encouraged to set these types of tasks for the folio component of the course.

Past examinations papers should not be used as a whole assessment task as these are readily available on the SACE website, which students can access. Modification of questions from past examination papers would provide a more reliable assessment task. Use of a past examination paper as a mid-year examination is not recommended as a folio task, as students are still establishing their knowledge and understanding at this time of the year.

If teachers do choose to use a test/examination as a folio task, they must ensure that accurate marking occurs. Teachers must also carefully consider how students’ responses on a test address the specific features of the relevant assessment design criteria. An overall mark or percentage may not accurately reflect how well the specific features have been addressed. Teachers need to consider which specific features are being addressed by each question, before discerning an overall grade for each student.

Teachers are reminded that the issues analysis assessment requires students to explore an issue(s) that focuses on physical activity and it must have some relevance to local, national, and/or global audiences. Issues based around online gambling, motor racing, horse racing, or blood sports (such as UFC and boxing) are generally discouraged. However, if unsure, the teacher is encouraged to contact the relevant SACE Officer Curriculum for clarification.

The issue must be explored from more than one perspective (i.e. argumentative style) and must be balanced. The best responses demonstrated highly discerning and perceptive critical analysis of an issue, with insightful evaluation and synthesis of source material. Many students were able to research and explore a topical issue, but presented only a competent discussion and analysis of the material. The issue should be current and contemporary and not outdated (e.g. LARS surgery) or too broad (e.g. drugs in sport). Appropriate referencing within the body of the text (via Harvard in-text or footnotes) and a comprehensive reference list at the end are important components of the issues analysis and must be accurate in order to address specific feature CAE4.

Students who do not submit an issues analysis place themselves at risk of not adequately addressing all components of the course; specific feature CAE3 is most easily addressed within this task. Unless students complete another task where there is scope to critically analyse an issue related to physical activity, they are unlikely to address this specific feature, which will reduce their overall grade for the folio.

Schools are encouraged to carefully consider the necessity of combining classes and/or schools into one assessment group. Combined classes are encouraged to use at least some folio tasks that are common to all students in the assessment group to assist with the ranking of students within the group. Cross marking is strongly encouraged; assessment needs to be consistent. Inconsistent/inaccurate marking from one teacher can significantly affect the results of all the other classes in the assessment group.

Assessment of the final grade for folio tasks should be made on balance. Some teachers have weighted tasks without considering the performance standards as a whole for this assessment type. Individual tasks in the folio should not be weighted.

## External Assessment

Assessment Type 3: Examination

In general, 2 marks are awarded for one well-expressed piece of information. For a question worth 3 marks, there is usually an expectation that students will use specific terms, or that they will apply a relevant and connected piece of information. Students should also endeavour to use the specific language of the subject in all their responses.

Teachers and students should note the following comments:

* Students should practise reading examination questions carefully, and follow the instructions that accompany the questions. Many students appear to misunderstand questions. This indicates the need for more practice in the interpretation of examination questions, using past examination papers that are available on the Physical Education minisite.
* Students’ responses should be relevant to the question asked.
* Students should be familiar with the requirements of keywords used in the examination; for example, ‘identify’, ‘explain’, ‘state’, or ‘describe’. Students appear less familiar with the response required for the keyword ‘discuss’.
* Successful students used contextual information in the question stem to help them to understand the question.
* Examinations contain visual information. Students should be able to interpret and manipulate data from tables, graphs, and diagrams. These skills are necessary so that students can use the information from tables, graphs, and diagrams as evidence when applying concepts from the Content section of the subject outline in sporting situations.
* Students should be familiar with, and able to use, the specific terms found in the Content section of the subject outline (i.e. Topics and Key Ideas).
* Some students need to further develop and be able to apply their understanding of the concept of the interplay of energy systems. When analysing energy contributions in an activity, many students do not recognise the smooth blending and overlap of systems. This concept is still not well understood and applied in explanations.
* Many students appear unable to link the application of a concept such as training methods to its effect on performance.
* There is concern about students’ level of understanding of the terminology used in skills acquisition.
* Students appear to show confusion between acute and chronic aerobic and anaerobic responses to training.
* Many students continue to rewrite the question as part of their response which takes time and may limit the depth of their response.

Part 1: Short-answer Questions

Section A

**Question 1**

Generally most parts of this question were answered well. Students appeared familiar with the principles of circuit training and the factors of fitness that were evident in the exercises presented in the circuit. The concept of specificity and its application to a training method appropriate to basketball were also well done.

**Question 2**

Parts (a) and (b) were successfully attempted by many students who recognised the relationship between a change in the athlete’s diet and an increase in oxygen uptake. Use of the data to support the explanation was necessary to achieve full marks.

Parts (c) and (d) had varied responses. Many students did not fully understand the role of mitochondria in energy production. Part (d) required a detailed explanation that linked a change in oxygen uptake with the subsequent effect on performance. The better responses explained that greater availability of aerobic ATP production enabled the cyclist to perform at a higher power output without accumulating lactic acid.

**Question 3**

Overall there was a large range of marks achieved for this question. Parts (a), (b), and (c) were well done. Students were able to explain the relationship between decreased oxygen-carrying capacity and performance.

In part (d), many students selected ‘increased volume of haemoglobin’ to explain the effect on the athlete’s performance during the race. Those students who selected ‘increased concentration of myoglobin in the muscle cells’ or ‘increased density of capillaries’ were less clear in their answers and did not logically explain how the physiological response would help the athlete during the race.

**Question 4**

This question was well answered by many students. There was correct reference to the graph in most responses. Students were also familiar with the onset of blood lactic acid (OBLA) and a consequent reduction in performance.

**Question 5**

The concepts examined in all parts of this question required an understanding and application of biomechanical terminology and principles. Students appeared to struggle with the application of biomechanics to technique and performance. Parts (a) and (b) were answered well, with most students achieving some marks, usually with less specific terminology.

In part (c), discerning students correctly recognised the concept of force reception and were able to explain the effect of changing body position. Some students made errors by assuming a calculation was necessary and had not read the context statement carefully.

**Question 6**

Part (a) and (b) were generally well answered by most students. However in part (c) fewer students were able to explain how the aerobic energy system was able to contribute to replenishment of the ATP-CP energy in the recovery time frame. Many students could not accurately discuss the interplay of the energy systems and seemed confused about the way energy systems respond to changes in the intensity and duration of exercise.

**Question 7**

In all parts of this question successful students linked the changing intensities of exercise with specific fuel use. Higher intensity activity uses glycogen as fuel; and fats contribute to fuel at lower intensities. In part (b), the best responses described the physiological benefit of protein for repair of muscle tissue in the competitive phase, or, in conjunction with carbohydrate, for recovery. Protein stimulates and amplifies the insulin response, promoting glucose recovery in depleted muscle cells. A significant number of students were able to correctly link the principle of specificity with the correct phase of training.

Section B

**Question 8**

In this question it appears many students understand the characteristics of different body somatotypes and are able to link this to advantages in performance in specific events such as the 100-metre sprint. Most students described the effect of leverage on performance in relation to body size.

**Question 9**

In parts (a) and (b), some students had difficulty in clearly identifying the trend from the graph with a number only indicating there was a change in the reliance of the athlete on carbohydrates and triglycerides. Additionally, some students used the data in the graph but did not link it to the trend. Better responses saw the students articulate that there was a declining reliance on carbohydrates after the extended training program with a greater use of triglycerides.

Part (a)(ii) was done particularly well with the majority of students able to indicate that the trend was produced by aerobic training. A common correct response was continuous or fartlek training.

Responses to part (b)(i) were varied. Many accurate answers indicated that the concept of ‘glycogen sparing’ and its advantage to performance was well understood, clearly noting that the athlete is able to preserve muscle glycogen and use muscle triglycerides. Some students showed a weakness in their understanding of specific terminology and focused on the amount of energy released from fats (kilojoules) compared with carbohydrate, when the body is using these as a source of energy.

In part (b)(ii), common correct responses for this question included increased capillarisation of the working muscles to deliver greater amounts of oxygen, or that there was an increase in the size and number of mitochondria in the working muscle. Few students answered this question by identifying an increase in enzyme activity. Common incorrect answers included an increase in fast-twitch fibres and an increase in stroke volume, which were not relevant to the performance advantage listed in part(b)(i).

**Question 10**

In part (a), students had difficulty explaining the relationship between cardiac output and oxygen consumption. Some students focused on one or the other but did not link the two together or were not able to provide a suitable explanation of the relationship.

The majority of students correctly answered part (b). Maximum cardiac output was able to be read from the graph.

A significant number of students did not achieve full marks for part (c). Left ventricle hypertrophy and increases to blood plasma volume were the most common correct responses.

Part (d) proved difficult for many students. The most successful students correctly suggested that lower heart rate for a given submaximal task occurred after endurance training, because of increased arterio-venous oxygen difference. Therefore, there was decreased cardiac output after training. Other responses could have included increased mechanical efficiency of running, thereby reducing the oxygen requirement for a submaximal task, or a lower body fat thereby reducing oxygen requirement.

**Question 11**

Students were comfortable identifying and explaining two fitness factors for part (a), but not all students linked these factors to successful performance in the fun run. This question commonly scored full marks as it was a familiar application of fitness factors.

Standardised fitness tests seem to be well understood as part (b) was generally well answered.

Mostly students were able to identify the correct training methods to answer part (c). However, a lot of students were not specific in their responses and therefore did not receive full marks. General references to the differences in the exercise pattern for each training method should have been supported with details of the intensity and exact duration of the exercise.

Although part (d) was well answered in general, common errors referred to chronic adaptations instead of acute muscular responses. Frequently, responses included an increase in muscle temperature. A number of students did not make their responses specific to the muscular system and often incorrectly gave cardiac answers such as increased heart rate.

Overall, part (e) proved to be difficult for many students. Most students understood that energy systems interplay but some had difficulty explaining the interplay with specific reference to the gradient map. Few mentioned OBLA or steady state. Students often described the energy systems in traffic-light order rather than the energy systems responses to variations in the intensity and duration of the activity.

Part (f) was answered well. Common responses described increased sweating and consequent dehydration as a disadvantage, and sweating and consequent evaporation as an advantage due to its cooling effect. Few students explained dehydration in relation to reduced blood plasma volumes. Many students correctly described the advantages and disadvantages of wind velocity.

**Question 12**

Overall, most parts of this question were well answered, indicating an understanding of the principles of skill acquisition in performance.

Part (a) had a high success rate as students were able to explain selective attention in relation to successful performance.

Part (b) required students to use data in their response. Generally most students provided clear and logical responses.

In part (c), students consistently demonstrated how a coach could increase the cognitive learner’s ability to detect cues. Common responses included the coach increasing the size and colour of the stimulus and/or reducing the number of cues and/or slowing and closing down the skill.

Part 2: Extended-response Question

**Question 13**

The extended-response question required students to apply their knowledge about feedback to changes in player skill development. Students needed to use specific examples in their response to be awarded full marks.

Capable students gained high marks for this question describing a specific link between the changing capability of the athlete and the changing feedback requirements. For example, some students noted how athletes in the cognitive stage of learning a particular skill needed information about ‘what to do’ in order to perform the skill, whereas athletes in the autonomous stage of learning would often be given feedback about tactics and strategy because they could consistently perform the skill. The best responses described the stages of learning and consequent feedback as being fluid and not rigidly set.

A variety of types of feedback including external, internal knowledge of results, and knowledge of performance were used to explain the differences in feedback.

Common errors included a description of the characteristics of the learner in each of the stages of learning and confusion in the types of feedback described.

## Operational Advice

School assessment tasks are set and marked by teachers. Teachers’ assessment decisions are reviewed by moderators. Teacher grades/marks should be evident on all student school assessment work.

Physical Education

Chief Assessor