

Nutrition

2014 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

The majority of the tasks undertaken were of an appropriate Stage 2 standard, and were competently assessed against the performance standards. As in past years, most teachers made use of the support material available on the SACE website. However, the student evidence presented for some classes did not match the performance standards for the grades awarded. This was especially evident for the assessment design criteria of investigation (specific features I1 and I3), application (A3), and analysis and evaluation (AE1 and AE2).

Teachers are reminded that the issue analysis (within the investigations folio) is the only task for which there is a word-count requirement (maximum of 1500 words).

Assessment Type 1: Investigations Folio

Investigations in Nutrition can include tasks other than simple experiments, and it was pleasing to see teachers using other approaches such as observational studies or case studies. These tasks do not test any specific research hypotheses — the focus instead is on a nutritional problem or issue — but can give students the opportunity to demonstrate significant understanding of relationships between key ideas, such as the links between diet and health. Thus, depending on the task, predictions that underpin investigation tasks may take the form of a formal research hypothesis (most commonly expressed as an ‘if/or’ statement), a clarifying statement, or a specific question. An important part of the scientific process is the ability to formulate a relevant prediction. Whether the investigation is a true experiment or quasi-experiment, an observational or case study, or an issues investigation, the basic tenet remains that the prediction should be a declarative statement that identifies the expected relationship between an independent variable and at least one dependent variable. In the case of experiments or quasi-experiments that test a research hypothesis, the predictive statement should also indicate the expected direction of that relationship.

Teachers should encourage students to not only construct a relevant prediction, but also provide some justification for it in the form of background information that is linked to nutrition. Often, the precursor to a prediction is an issue, question, or problem that might ask what is happening or why something is happening. Placing the issue, question, or problem in a nutritional context in an introduction provides scope later in the discussion for students to link their investigation findings or results to the broader nutritional context, thereby giving them an opportunity to demonstrate achievement at higher levels across the specific features being assessed. Successful students provided clear links between nutritional theory and the investigation being carried out (demonstrating their knowledge and understanding of nutritional theory), and used nutritional theory to connect to the aims and outcomes of investigations through all parts of their reports.

While the development of a testable hypothesis is important for all practical work, it is particularly crucial for the design practical, as a poor hypothesis will impact on a student’s ability to demonstrate achievement against the performance standards in the design proposal and the report. Teachers should provide feedback at the design proposal stage to identify issues with the hypothesis, and whether or not any data generated can be used to address the hypothesis. Designs should be written in future tense, and the marked design proposal should be submitted for moderation along with the final report.

Teachers are encouraged to provide evidence to support assessment decisions for specific features I1 (design), I3 (laboratory performance), and A3 (collaboration component). Many teachers choose to combine assessment of I1 (design) and A3 (collaboration) within one practical. When this is done, teachers need to provide opportunities for students to submit independently generated designs for assessment; collaboration can then be used as a strategy to refine a chosen design and undertake data collection. Evidence that supports student achievement for A3 and for I3 could be in the form of a grid reflecting the key features of A3 and I3, which teachers can use to record their observations of student performance. Self-assessment and/or peer assessment are also useful ways to record achievement.

The specific feature I1 was often generously marked, with many designs lacking sufficient detail. The best examples of student work, however, included a justified hypothesis, detailed information on how control variables would be controlled and why this was necessary, what type of data would be suitable, how it would be collected, and how the data would be analysed and used to validate or falsify the hypothesis. Good design practicals provided sufficient detail to allow replication, and also ensured use of repeated measurements to improve reliability and validity.

Teachers should discourage students from placing summary data tables and graphs in appendices. However, raw data should not be included in the results section of a report; if it must be included, it should be placed in an appendix. Students should display relevant findings of investigations in the results section of their reports, which should be accompanied by brief statements of the main patterns and trends in the data. Relevant findings mean results that are essential to addressing the research question and/or hypothesis. The discussion section should be reserved for interpretation of investigation findings and evaluation of procedures (with suggestions for improvement), and a brief conclusion about the evidence presented. However, analysis of information was quite limited in many cases, often comprising little more than restating findings, and evaluation of procedures and justification of suggested improvements were also limited. For example, evaluation at the A band requires students to ‘*logically* evaluate procedures and suggest a *range* of *appropriate* improvements’ [emphasis added]; while many students were able to state a number of improvements, they often failed to explain why a procedure was flawed or how a suggested change would improve the outcome. The best examples of student evaluation made use of tables or subheadings to evaluate sources of systematic and random errors, with clear explanation of why something was problematic and with suggested improvements. A small number of students also evaluated reliability of data and validity of measures, but the majority of students avoided discussing these two key concepts. Teachers are encouraged to continue to develop clear and informative task sheets that encourage students to use the discussion section of reports to explain findings of investigations in a nutritional context, and to consider sources of error, validity, and reliability to allow achievement at higher levels against the performance standards.

There is no requirement to set a word-count for practical investigations and teachers are discouraged from doing so. The number of specific features being expressed usually dictates the length of a report, and since this is variable, using a single word-count for tasks could lead to reports that might be lacking in depth. In regards to this, teachers are urged to avoid assessing too many specific features within one task; this was a common practice seen at moderation. Not using a word-count should allow a teacher to discriminate between student work, as the strongest students will communicate concisely and coherently.

Many teachers undertook the issues investigation as a two-part exercise. Part A focused on I2 and Part B was most commonly completed as a timed in-class exercise. Other teachers gave free choice of subject and an extended timeline for submission. Whatever method is chosen, it is crucial for the teacher to ensure that students narrow down a broad topic to an open-ended question that provides scope to present evidence for multiple points of view. For example, one might tentatively ask ‘Why are more people selecting grass-fed beef?’, but this is too broad a statement to be dealt with effectively within the word-limit. Rather, teachers should guide students to develop a suitable question that emerges from the broader topical subject, for example, ‘Is grass-fed beef nutritionally superior to grain-fed beef?’ Failure to do narrow the topic has the potential to limit a student’s ability to demonstrate achievement against the performance standards at the higher levels.

Assessment Type 2: Skills and Applications Tasks

Timed tasks under supervision, such as tests and trial examinations, were the most common form of assessment undertaken in Assessment Type 2. Teachers should note that multiple-choice questions generally do not provide students with the opportunity to show broad and deep knowledge and understanding, nor allow them to demonstrate higher-level skills in analysis, evaluation, and application. Past examination questions or test questions should serve as a guide to achieving a level of cognitive complexity that provides scope for students to demonstrate achievement at higher levels across the performance standards. Teachers are strongly encouraged to modify questions for which published answers are available.

Tests and examinations were usually assessed using marks. Marking was generally of an appropriate standard, and moderators appreciated inclusion of marks schemes in the teachers’ packages. However, the marking by teachers was generous in some cases, particularly in relation to I4 (graphing questions) and AE1 (analysis of data, connections between data and concepts, formulation of conclusions, and making relevant predictions).

Most students also completed a variety of assignment work, for example, undertaking dietary analysis or investigating diet-related disorders. While most student evidence was in written form, a small number of students presented their findings using alternative modes of assessment. It would be preferable for moderation if these presentations were recorded and submitted as a multimedia file on DVD, CD, or USB drive, rather than simply providing materials such as cue cards and printed PowerPoint slides.

Poor task design sometimes made it difficult to confirm assessment decisions, and it should be clear to students what specific features are being assessed and which parts of an assignment or test question they correspond to. Teachers should ensure that task descriptions and specific features being assessed in the learning and assessment plan (LAP) directly correlate with the information on the task sheet to avoid confusion. A lack of clarity might affect a student’s ability to demonstrate achievement against the performance standards.

## External Assessment

Assessment Type 3: Examination

As in past years, the examination comprised two parts: Part 1 has short-answer and analytical questions, presented as two booklets (Questions 1–4 and Questions 5–8) worth 100 marks, and Part 2 has extended-response questions worth 20 marks. Two extended-response questions are provided, of which students are expected to answer only the one corresponding to the option topic that they had studied in class.

The mean score for the 2014 examination was 54.6%, which compares with previous means of 52.3% (2013), 51.6% (2012), and 56.7% (2011). The mean score for Part 1 (short answers) was 54.5%, while the mean score for Part 2 (extended response) was 54.6%.

Part 1: Short-answer and Analytical Questions

Examination questions are designed to integrate different parts of the four compulsory topics, with information in scenarios that students must take into account when writing their responses.

It is worth noting that 2 marks are allocated for one well-expressed piece of information. Where 4 marks are allocated (usually in questions requiring explanation), two relevant and connected pieces of information are needed to achieve full marks.

The questions varied in difficulty, ranging from quite easy factual recall (e.g questions with key words such as ‘state’ or ‘name’), to more difficult recall (e.g. ‘describe’), through to those requiring critical application of knowledge and understanding, and problem-solving in an unfamiliar context (e.g. ‘explain’ or ‘suggest’). It was apparent that some students were unable to discern the distinction between key verbs/process words such as ‘state’, ‘describe’, ‘explain’, and ‘suggest’. Students are also encouraged to avoid using the wording of a question as if it were an answer in itself; this wastes valuable examination time and will not be rewarded.

Students are reminded to link their answer to information provided in a scenario, rather than providing general information often completely unrelated to the question. Students may be able to avoid the problem by using reading time to note key terms and understand what they are being asked to do.

Students should note that the space allocated for an answer in the examination booklet is sufficient for the purpose of writing a concise, clear response using correct nutrition terminology. However, an extra page is available at the back of each booklet should students need more space to complete an answer or write a replacement answer; if this is used, then the work needs to be clearly marked as to which question or question part it refers to

Below are detailed comments on individual questions.

Question 1

(a) Many responses were very general, with poor use of correct terminology. Some students made effective use of diagrams to support their answers. A small number of students misinterpreted the question and discussed disorders such as heart disease, obesity, and Type 2 diabetes, rather than describing the progression of atherosclerosis.

(b) Responses to this question were sometimes too generic, such as obesity or Type 2 diabetes, rather than specific health consequences such as premature death, angina, heart attack (myocardial infarction), kidney damage, vision loss, stroke or TIA (transient ischaemic attack), peripheral vascular disease, or aortic aneurysm.

(c) This was a challenge for many students, who could not adequately explain the link to hypertension. Surprisingly, some students chose to discuss a different risk factor despite clear instructions to choose either smoking or alcohol.

(d)(i) Generally, students were able to identify regulation of fluid in the cells and muscle contraction and relaxation as roles of sodium in the diet. Incorrect answers mainly focused on the health implications of too much sodium in the diet.

(d)(ii)(1) and (2) Students who did well showed they clearly understood that a behavioural strategy is one that involves changing habits. The most common suggestions were to remove salt shakers from the dining table, alteration of travel routes from home to work to avoid takeaway outlets, and learning to prepare fresh food rather than processed foods, which would mean Daniel could monitor and reduce sodium intake.

Question 2

(a) Some students misinterpreted the question and failed to focus on an *environmental* disadvantage of transporting food over long distances. The better responses clearly linked long-distance food transportation to a specific environmental issue, for example, the use of non-renewable and polluting fossil fuels. Those students who focused on contamination and food spoilage received no marks.

(b)(i) Fresh milk: Generally well done. The most common risk factor identified was sunlight, due to its ability to destroy riboflavin (vitamin B2), and most students correctly suggested a suitable packaging material (e.g. a light-impermeable plastic container).

(b)(ii) Breakfast cereal: Most students were able to correctly identify a risk factor (e.g. spoilage from moisture making the product soggy), and suggest suitable packaging (e.g. sealed, waxed plastic bag inside a cardboard box).

(b)(iii) Fresh eggs: Responses to this part were disappointing. Many correctly identified breakage as a risk, but the packaging suggestions and how they reduced the risk factor lacked sufficient detail.

Question 3

(a) It was disappointing that few students were able to clearly describe the role of the gall bladder and bile in lipid digestion. Many confused the site of production of bile, and its role in emulsification was rarely mentioned.

(b)(i) and (ii) These parts were challenging for many students. Those who gained high marks correctly identified two suitable modifications (e.g. avoiding consumption of high-fat foods at any one time, increasing insoluble fibre intake, reducing sodium intake) and justified how the modifications would relieve diarrhoea. A large number of students appeared to misinterpret the question, and simply evaluated Jackie’s fat, fibre, or sodium intake against the recommended range, while making no link to alleviating diarrhoea.

(c)(i) and (ii) These two parts were generally well answered, but some students did not heed the instruction to ensure that the stated food modifications were consistent with the nutritional modifications they had suggested in part 3(b).

Question 4

(a) Most students gave very general responses to this question; for example, vegetables provide a variety of vitamins and minerals that are good for health. The best responses gave specific detail, for example, naming one or more phytochemicals (such as carotenoids, flavonoids, isoflavonoids, polyphenols) present in different coloured vegetables and their protective/preventative role in health and disease. A specific health benefit had to be given to gain full marks. For example, vegetables with high antioxidant activity (due to phytochemicals present) reduce the risk of inflammation (or of cholesterol becoming oxidised and being deposited in blood-vessel walls to form atherosclerotic plaques). More common were examples linking consumption of low-kilojoule non-starchy vegetables (as part of a weight-management program) to treating or preventing complications of obesity, or preventing diverticulitis by consuming fibre-rich vegetables.

(b)(i) Most students recognised the toxic nature of these heavy metals, but gave vague responses about the potential impact of heavy metal exposure on 2- to 5-year-old children. Good responses did link exposure to heavy metals to impacts on brain and cognitive development, and to specific problems with memory and vocabulary development, decreased IQ, or risk of ADHD.

(b)(ii) The graph proved challenging for many students, but those who achieved higher marks were able to represent the data accurately and follow the usual conventions.

(b)(iii)(1) Most students correctly identified B.

(b)(iii)(2) To gain full marks, students were expected to use the data in their response, for example, ‘B is the only site where cadmium levels are below the recommended level (0.1 mg/kg) for all three vegetables (carrots 0.05 mg/kg, lettuce 0.02 mg/kg, spinach 0.03 mg/kg)’. This was generally well done.

(c)(i) Most students correctly identified the independent variable.

(c)(ii) Most students correctly identified the dependent variable.

(c)(iii) Many students misunderstood the aim of the research project, and their conclusion became a statement recommending one method (biodynamic) over the other (conventional). These responses (e.g: ‘The biodynamic method of growing vegetables was more successful in reducing the heavy metal contamination of vegetables, as it had the least amount of heavy metal contamination per vegetable than the conventional method’) were awarded 1 mark. Some students, however, realised that the aim was to find a growing method for the four vegetables that would reduce metal contamination to below recommended levels, and correctly concluded that neither method would allow all four vegetables to be grown in home gardens. A typical example of a conclusion that gained full marks was: ‘Only carrots should be grown in home gardens — either method will reduce lead levels to below recommended level (0.3 mg/kg). Method 2 is the better one in terms of lowering level (0.22 mg/kg, compared to 0.26 mg/kg for Method 1).’

Question 5

(a) Students who understood the question commonly identified that both food models recommend a large vegetable consumption, a fruit intake smaller than for vegetables, and eating ‘healthy fats’. Better responses identified segments broken into food groups based on macronutrient content and the encouragement of healthy fat consumption. A common error was to state that the vegetable portions were the same size in the two models, when in fact they are different. Many students identified visual, not nutritional, similarities between the two food models.

(b) Many students identified athletes as a suitable group of people and explained the relationship between protein and muscle repair and recovery. A small number of students also identified coeliacs as a suitable group. These students identified the exclusion of grains, gave examples, and explained that gluten (which is in some grains) damages villi in the small intestine of coeliacs. A number of students incorrectly identified vegetarians, vegans, and lacto-ovo vegetarians. It was clear that some students misread the question, as they provided reasons to explain why these groups were unsuitable for the Palaeolithic diet. Others simply ignored the focus on animal products and said that two-thirds of the diet was made up of fruit and vegetables and was therefore suitable.

(c) This part was answered well by most students, showing that they were able to apply nutritional knowledge linking dietary intake with associated diet-related disorders and diseases. The majority of students identified the relationship between high intake of saturated fat, LDL cholesterol, and heart disease. A small number of students also identified the strain on the renal system through protein metabolism.

(d) This question was not answered very well overall, with the majority of students receiving no marks. Many students misread this question or did not understand the terms ‘reliable’ or ‘credible’, as many students listed reasons why the AGHE was a useful food model for the Australian people. Students who understood the terms ‘credible’ and ‘reliable’ appropriately acknowledged that the food model was government funded and promoted and used by dieticians and other healthcare professionals such as doctors.

Question 6

(a) Most students received full marks for this question. It was pleasing that the majority of students transferred their answers to the table as required. The students who answered incorrectly often used the correct figures and processes on paper but had calculation errors in one part; in such instances, partial marks are still awarded for correct processes.

(b) Some students realised that the simplest way of answering only required them to subtract the given values from 100 to arrive at an answer. Students who tried other methods did not appear as confident with the percentage calculation, and it appeared that some were unfamiliar with the process, which resulted in zero out of 3 marks. Students who had a clear understanding about the question sometimes wasted time by working out unnecessary information. For example, they calculated the total energy, which was already calculated and some even provided the percentages for macronutrients beyond protein.

(c) This was done very well overall, but students are reminded to incorporate data into each response to ensure full marks are received. Some students incorrectly referred to the recommended ranges as RDIs.

(d) Generally well done, with many students receiving full marks. The majority of students identified that iron was beneficial due to menstruation. Other students identified calcium, due to rapid skeletal growth and recruiting calcium to reach peak bone mass to avoid osteoporosis later in life.

Question 7

(a) Most students correctly identified that minimal processing resulted in greater nutrient retention. Students who simply said ‘more nutrients’ needed to provide more information to show greater depth of knowledge and understanding.

(b)(i) Answered well by most students. Common answers included the elimination of bacterial contamination and the extension of shelf life. A small number of students simply gave examples of ‘food preservation techniques’, indicating that they had misread the question.

(b)(ii) This question was well done by the majority of students, while others gained some marks by correctly identifying a different method of preservation for each food. Some students provided ‘drying’ as a preservation technique for each food, despite clear instructions to select a different method for each food. Other students lost marks because they described storage conditions instead of preservation techniques. This was a question where students needed to provide specific detail; for example, students who simply identified ‘containers’ needed to identify ‘airtight containers’ to show their knowledge of aerobic bacteria and increased bacterial growth. Many students identified ‘canning’ as an appropriate preservation technique for tomatoes. However, they neglected to explain the relationship between heat and reduced bacterial growth, and focused on reduced aerobic bacterial growth. High-level responses identified jam-making as an appropriate preservation technique for apricots and were able to explain how this technique preserved the food source. Refrigeration was commonly identified as a preservation technique; however, students are reminded that bacterial growth is reduced, not destroyed, below 4**°**Cpreservation. Students who gained full marks were able to identify factors such as ‘danger zones’, low temperatures, pH, and removal of moisture and oxygen to inhibit micro-organism growth and thus preserve food.

(c)(i) Answered well by most students, who paid attention to the key statement ‘easily used at home’. The most common answer was refrigeration, followed by drying or dehydration.

(c)(ii) Many students identified that refrigeration increased the shelf life of food, thereby reducing food wastage, which would reduce the shopping budget. Those who identified sun-drying were able to correctly identify the lack of equipment needed and the use of the sun’s energy, which is free.

(c)(iii) Better responses identified that minimal or small amounts of nutrient loss occurred in their preservation method, or identified specific nutrients maintained in freezing or refrigeration. Poorer responses were quite general in nature, with statements such as ‘retains some nutrients’ or ‘does not lose any vitamins’. It was pleasing that students who chose drying were able to identify the condensing of nutrients and thus greater nutritional value.

Question 8

(a) Students gaining full marks clearly identified the role of insulin in regulating blood glucose levels, before explaining how this is less effective in a person with Type 2 diabetes. A common misconception was that insulin acted as a carrier protein for glucose in the blood.

(b) Many students did not receive full marks because they listed dietary, not lifestyle, strategies, such as decreased fat intake and increased low GI food intake. Many students salvaged at least 1 out of 2 marks by identifying exercise as a suitable lifestyle strategy. Less common, but pleasing responses, included ‘a support group to support positive changes’ or ‘encouraging a hobby to reduce snacking’.

(c) The majority of students confidently understood the role of BMI and how it could be used to determine a person’s risk of Type 2 diabetes. Some students confused BMI with BMR.

(d)(i) This was quite often left blank. Some students identified the different blood sugar responses with ‘simple’ and ‘complex’ carbohydrates, but neglected to explain how this affected a food’s GI. Rarely did a student describe how the amount of fat in a food affects the GI index of a food, or the impact of the amount of fibre in a food. This resulted in many students receiving 1 out of 2 marks.

(d)(ii) Most students answered this correctly.

Part 2: Extended-response Questions on Option Topics

Students are expected to answer only one extended-response question, which will correspond to the option topic that they studied in their class. While many students did attempt only one question, there were small numbers who did both, which is wasteful of time and attracts no extra credit.

Each extended response is marked out of 20, with 16 marks allocated for content (each well-expressed idea or piece of information is worth 2 marks) and 4 marks for communication. Communication takes into account the following factors:

* Was the response logically structured (i.e. well organised, sequential) using sentences and paragraphs?
* Did the response clearly explain concepts relevant to the question, and use concise nutritional language?
* Did the response use correct grammar and spelling?

Students should ensure that their writing is legible, and are strongly encouraged to use black or blue pen. Students should not write an introduction, paraphrase dot points, nor write a conclusion. No credit is given for unnecessary writing; it wastes valuable examination time, and may even result in loss of communication marks. Quite a few responses were less than one page in length, some far less, suggesting that little time had been allocated for this part of the examination. Students should allow sufficient time to plan and write their response; suggested timings are given in the instructions above the questions. They should also ensure that their responses address all aspects of the discussion points if they wish to maximise their mark. Marks were often lost by students for using colloquial language rather than nutrition terms, for not providing sufficient detail in the discussion points, or for using the same examples and justifications for different dot points.

Question 9: Global Nutrition and Ecological Sustainability

*Dot Point 1: Discuss the impact of different stages of the food-processing chain on the environment, using an example from the fishing industry.*

Overall, this section was well answered when students focused on the key term ‘food-processing’, with most students remembering to link the first part of their discussion to fishing (although generally not to a specific type of fish). Many students discussed the environmental impact of overfishing one species or the use of nets to catch fish. Another common example was the use of non-renewable fossil fuels for either manufacturing or transportation, which was then linked to global warming. To receive full marks, students needed to discuss the environmental impact of at least two stages of the food-processing chain, and some did not do this.

*Dot Point 2: Discuss two strategies (other than methods of food preservation) that could help individual households to play a part in reducing the environmental impact of food processing, and therefore potentially contribute to the sustainability of food production.*

The responses to this discussion point were quite good, with a wide range of appropriate suggestions and sound justifications for how the strategies could help to reduce environmental impact of food processing and improve sustainability. Growing their own foods and recycling of materials were common answers, as were composting of organic waste, and supporting local producers by buying locally. Most students also managed to make good connections to environmental impact and sustainability.

Students lost marks in this discussion point when they used the same justification for the two strategies; this approach reduced a student’s ability to demonstrate achievement at higher levels against the performance standards, particularly A1 and KU2.

*Dot Point 3: Discuss one benefit and one limitation of the food production principle of organic farming.*

This discussion point offered plenty of scope for students to demonstrate knowledge and understanding of concepts such as biodiversity, soil-management practices, eutrophication, and the economics of organic farming. Many students were able to give detailed descriptions of the principle of organic farming as well as one benefit of organic farming, but struggled to discuss a valid limitation in any detail. A common issue was where a student used the same example for both benefit and limitation, and marks were reduced when this was done.

*Dot Point 4: Discuss two strategies that governments or non-government organisations could implement to secure a world food supply.*

Overall, this question was poorly answered, with limited discussion from many students. Many failed to link suggested strategies to securing a world food supply. Responses should have focused upon the key determinants of food security — for example, availability and access (through investments in agricultural productivity, agribusiness and market development, and equitable distribution of and control over productive resources); utilisation of food; and stability (political solutions).

If students answered this section well, it was clear that they were taught specific detail about various subjects such as the environment protection authority (EPA), trade agreements, governments offering financial support or supporting research, or the provision of targeted education programs or infrastructure by non-government organisations (NGOs).

Question 10: Global Hunger

*Dot Point 1: Discuss* one *micronutrient deficiency disorder of childhood malnutrition and the long-term impact this might have on developing communities.*

Most students could name an appropriate micronutrient deficiency disorder, but the most usual reason marks were lost was because they did not link the discussion well to the long-term impact on developing communities. Disturbingly, a significant minority of students described macronutrient deficiency disorders or inappropriate micronutrient deficiency disorders not associated with childhood. Long-term impacts were mostly written in general terms about the child not being able to attend school or help work on the farm. The most common disorders were anaemia (iron or vitamin B12 deficiency), scurvy (vitamin C deficiency), beriberi (vitamin B1 deficiency), or pellagra (vitamin B3 deficiency).

*Dot Point 2: Discuss two reasons why inequalities and lack of social justice deny many people access to a secure food supply.*

Many responses were shallow, with brief statements and little detail in the discussion. It was common to see general points about the differences between the rich and poor, and how the rich had better access to food and more money to buy it with. Some then did relate this inequality to the inequitable distribution of resources, but most did not elaborate further. A common description was ‘the poor are discriminated against, while the wealthy can buy food and land’, but without further qualification. Economic barriers, gender, caste, and religion were also common reasons, but the link ‘to secure food supply’ was often absent or poorly done.

*Dot Point 3: Discuss two political decisions that have led to an increase in the number of underweight children in some developing regions.*

Students did well to identify a range of political decisions, but many did not follow up with a discussion of how those decisions contributed to an increase in the numbers of underweight children. The most common reason related mostly to wars and their impact. Impacts were generally well described, such as land and crops being destroyed, or men fighting and therefore unable to work the land, or financial resources being diverted to fund the army and thus not being used for growing food.

Other reasons included decisions not to trade with other countries or corrupt governments, and the impact of encouraging cash crops, limiting education, and unfair distribution of government funding.

Marks were also lost in some instances where students did not extend the discussion to underweight children.

*Dot Point 4: Discuss two government or non-government programs that may have contributed to reducing the percentage of underweight children.*

In this section, nearly all students could describe an NGO, with Red Cross, Caritas, World Vision, and Oxfam being the common ones cited. However, it was uncommon to see examples of specific government initiatives. There was a focus on short-term aid, and mostly after disasters, with some students then describing how the NGOs improved infrastructure and farming techniques for long-term solutions. Revolving loan funds were also a popular example (and many students used specific examples, such as the Grameen Bank), as were food donation or infrastructure programs — although these examples often lacked substance.

## 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.

Moderators appreciated the effort that most teachers put in to preparing excellent teacher materials and the requested student samples. The confirmation process went more smoothly when teachers included an approved learning and assessment plan (LAP), addendums that detailed and justified any approved changes to the LAP, and a set of task sheets where the specific design features being assessed matched those ticked on the LAP and/or addendum. When teachers include neither the LAP nor an appropriate addendum, it is more difficult for moderators to confirm assessment decisions. Using outdated performance standards was also problematic. Teachers are urged to ensure that they use the correct performance standards and that task sheets reflect this; there was a significant minority of schools assessing AE3, which is not in the subject outline.

LAPs are required from each assessment group. Where multiple teachers combine to form a single assessment group, it is essential that the teachers undertake internal moderation to ensure consistency of marking standard.

Teachers are reminded that it is also essential to submit a Variations — Moderation Materials form in their teacher pack where assessment tasks have been modified for students, a breach of rules has occurred, or student samples have missing work that has been seen and marked by the teacher. Teachers are encouraged to put processes in place that will reduce the likelihood of marked work going missing.

Teachers need to be aware that the results they submit to the SACE Board are used in moderation, and so they should take care to avoid errors when submitting them.

Student materials were generally well presented. The use of bulky folders is discouraged, as the supplied plastic bags are sufficient. Student materials should be sorted by assessment type. Moderators found it very helpful when a cover sheet with an overall summary of assessment decisions for all tasks, indicating the performance standards used, was included. Teachers should refer to packing instructions in the subject operational information on the Nutrition minisite.

Some teachers went to great lengths to remove student names and school names from work, and many schools also sought to preserve anonymity by ensuring that school names did not appear on student work. These actions are a matter of choice for the school, but it is not essential to de-identify student work, nor to submit work that is devoid of teacher feedback, for the school assessment component. Teachers’ comments on students’ work are encouraged as they help moderators to verify decisions that teachers have made about the standard of that work. Other evidence to support a teacher’s assessment decisions, for example, observation rubrics during practical or group work, should also be included for the same reason.

## General Comments

Teachers should refer to the subject outline and support materials on the Nutrition minisite for information and advice about each of the school assessment types.

It is recommended that teachers consider joining the online community for Nutrition, via the Nutrition minisite, to make connections with other teachers and receive up-to-date information.

New teachers are encouraged to seek clarification and advice early in the year by attending clarifying forums and contacting the SACE Officer — Curriculum.

Nutrition

Chief Assessor