

Assessment Schedule – 2013**Home Economics: Evaluate conflicting nutritional information relevant to well-being in New Zealand society (91470)****Evidence Statement**

*Note: For sample answer material, see **Appendix A**.*

Questions Parts (a), (b), and (c)		
Not Achieved	N0	No response, no relevant evidence.
	N1	Little evidence of discrimination between valid / invalid information. No nutritional knowledge of their own provided.
	N2	Demonstrates some understanding but does not analyse.
Achievement	A3	Analyses enough information / evidence to draw an appropriate conclusion relating to well-being.
	A4	Analyses most of the information to draw an appropriate conclusion relevant to well-being.
Merit	M5	Analyses and evaluates, in depth, some intentions / motivation of the information presented. A conclusion regarding the credibility of the information is drawn.
	M6	Analyses and evaluates, in depth, a broad range of intentions / motivations for the information presented. A conclusion regarding the credibility of all of the information is drawn.
Excellence	E7	Justifies their position about the dietary advice and challenges at least ONE inherent assumption.
	E8	Fully justifies their position about the dietary advice and challenges at least TWO inherent assumptions.

Judgement Statement

	Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
Score range	0 – 2	3 – 4	5 – 6	7 – 8

Appendix A – Question Parts (a), (b), and (c)

Note: The resource contains information about a weight-reduction diet product for sale on the Internet and advertised on Facebook (<http://alivebynature.com/greencoffee/>). The expectation of the candidate is that they will use their own knowledge to evaluate this advice by analysing the credibility of the evidence presented. This means they will apply a credible set of guidelines they have learnt this year, such as those of Catherine Saxelby (see: <http://foodwatch.com.au/blog/healthy-weight-loss/item/fad-diets-false-promises-and-magic-bullets.html#ixzz2RG0tBEOk> for further information).

(a) Analyse the possible impacts on well-being of the weight loss supplement.

The use of this supplement promises a quick result that is appealing to those who are not really ready to make a long-term commitment to dietary change. Whenever weight loss is really fast, lean muscle is lost, leaving the person ready to regain fat. This is not only disheartening, but can place strain on your heart and pocket.

The study was part of a TV show, which in itself, should alert the reader to a possible problem with this product, and the facts presented about how much was 'lost' in weight and fat terms, are quite unrealistic, and not at all sustainable. The inference is that the green coffee bean extract will 'burn' energy by speeding-up metabolism so the person can eat as per usual, do no extra exercise, but still lose weight. This is not possible and is merely wishful thinking.

The product is credited with miracle properties without any scientific backing. This enables the product to be sold as a diet supplement. In New Zealand, this is currently not well-regulated and efficacy (genuine researched proof that the product works as claimed) does not have to be proven. The sellers of this product claim it is 'new' and the proof will come in time. This is unacceptable and targets those who really need a long-term approach that has sensible eating and regular exercise as its base. This supplement does not require the user to change their current diet or exercise habits, apart from taking this extract. This means the poor diet that led them to being overweight in the first place is not changed.

The conclusion is that use of this supplement is unlikely to work because what we look for to check if a diet is sound is missing, indicating this is another fad (it promises quick results with no actual change in dietary habits or exercise). It claims to be proven, but does not have what is necessary when presenting scientific research. In fact, it relies on anecdotal evidence that is easily disproven. People following this will not learn to eat well and change eating into a healthy, lifelong habit. The scheme will require a regular purchase of the product that is expensive. However, it is unlikely people will do this once they realise they are not getting thinner. This will place the people involved in a position where they will feel they have failed, or have been deceived (ripped-off), and their dream of being slim like the unrealistic pictures on pages will be dashed. The idea that people should aspire to being like the female depicted, reinforces a stereotype of what women need to look like, and sends unhealthy messages, particularly to young women.

(b) Analyse the intention behind the weight loss evidence presented in the resource booklet, drawing conclusions about the credibility of those promoting it.

The credibility of the claims made in this article are questionable to say the least. The promotion refers to statistical evidence (17 lb in a few short months), but in no way does it show the findings to have been 'peer reviewed' (where research is shown anonymously to others with known expertise in this area and they comment on it from a range of perspectives, such as validity of how the research was conducted, and if the results were correctly interpreted). There is reference to other research that may confirm their findings, but this is really unclear, and the exact journal article is not written. Being able to find it is essential in order to check if it does support these claims.

Half of the nearly 100 participants in the study had a placebo. This means they did not receive the extract, but according to the report, did not know this. While this is an acceptable technique, and experts did bring the participants into the studio, there is no explanation about who these experts were, or how they earned this title. It implies it was done properly, however. More of a concern is all the emphasis placed on this one single study of a very small sample. Credible evidence is gained from a host of studies. The results need to be able to be replicated in order to be believable. The study relies on testimonials and anecdotes, which are both unreliable.

The use of a scientific approach about the way the research was conducted is used to create the illusion of being more believable. People searching for easy solutions to losing weight are potentially already keen to believe this sort of information.

The motivation of 'Dr Oz' is to entertain, and it is possible he will gain financially from promoting this diet product. Sensible eating messages are not good entertainment, so something sensational is more likely to appear on shows like his. A question could be who sponsored whom? Did Dr Lindsey pay to have this on Dr Oz's show? Either way, there is money to be made, and it is from selling diet supplements that cannot work.

The motivation of Dr Lindsey is an interesting part as well. He is a doctor of naturopathy and looks for alternatives to mainstream advice. In fact, he has made a living from it. His status as a 'Dr' could be investigated too. He is unlikely to be a traditionally medically trained doctor. If he is, then it is likely the promotion would make a big deal of this because it would add to his credibility. The following quote implies the medications are superior to conventional medicine and could frighten people about their own medications: "Clearly, the best approach is to combine several proven diet aids that work well together. Pharmaceutical companies often try to do just that, but their harsh chemicals have more side effects and are risky to your health".

(c) Evaluate the claims made in the evidence about weight loss and well-being.

Draw a conclusion using reasoned arguments from your own nutritional knowledge and understanding.

This supplement is modern snake oil, or quackery. The promotion preys on those seeking a simple, easy way to lose weight. It has all the hallmarks of pseudoscience. There is insufficient credible evidence that it works, and it will leave those who are taken in by it financially poorer, disenchanted, and possibly less healthy than before they started. It promotes unrealistic expectations, particularly for women, and reinforces stereotypes that are unhelpful for good mental health. The assumptions are we do not need to alter our eating or exercise habits in order to lose weight. This is plainly not true. To lose weight (and preferably fat, not muscle) there needs to be either an increase in our output, or a decrease in our input of energy. Quick weight loss leads to lean muscle loss, leaving the person in poor physical condition. Once the use of the supplement has finished, it is likely they will regain the weight, plus some.

The lack of verified evidence is no barrier to selling these products because they are considered complimentary medicines and do not have to be tested in the same way as other pharmaceuticals are. This assumption that it must be 'real' is created in the minds of the viewer by the hype from the promoter. The appearance of what looks like a real study using 100 people, and a placebo, helps create an illusion that this product works. The notion that the fat-burning properties are in the green bean extract is contradicted by the inclusion of stimulants and appetite suppressants shown in one of the preparations.