

Drinking caffeine can have a variety of short and long term effects on teenagers. This is a cause of concern for the Ministry of Health and they are therefore looking to find out more information on this topic. So the purpose of my questionnaire was to assist the Ministry of Health in finding out more about the effects that caffeinated drinks have on teenagers. My questionnaire provides information on the average number and type of caffeinated drinks teenagers currently consume and the effects that they feel the caffeine causes.

Firstly before designing my questionnaire, I made sure to fully research my topic so that I had an understanding of what drinks actually contained caffeine as well as what the effects of caffeine are, so I was therefore able to ask the right questions in order to obtain the data I needed. Using the internet, I looked at various websites to research the effects of caffeine as this is what I needed to ask questions about in my survey. Overall, the websites stated similar effects, with the most common being effects such as headaches, anxiety, sleeping disorders and increased mental alertness.

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To obtain some general background information, I asked people to tick their gender and age, however, I did not ask respondents to state any other personal details so that the survey remained confidential, encouraging respondents to answer truthfully. To begin my questionnaire, I firstly asked how many caffeinated drinks people had consumed in the past week. For this question, I had four answer options: 0-3, 4-6, 7-9, and 9 or over. This meant that every possible answer is covered, from people who did not consume any caffeinated drinks, to people who consumed over 9.

Because the specific purpose of my survey is to find out about the effects of caffeine, my questionnaire will provide information about how much caffeine students are drinking, how dehydrated students are getting, and do they suffer from lack of attention in their classes. To help identify where the problem may be, I will also be able to provide data on year levels and gender. The Ministry of Health could then use this information to assess whether there is a problem of how caffeine effect's teenagers.

I developed a questionnaire (four sections to the questions: demographic information, questions around how much caffeine they drink and why, questions around how much they sleep, questions around how awake or attentive they feel during the day). I considered how the responses from different survey questions could be used to provide information about the purpose, comparing the average amount of sleep per night for those teenagers who drink caffeine regularly to those who don't.

The type of questions I asked were: 'does caffeine affect your ability to sleep?' 'After consuming a caffeinated drink, do you feel that you have increases energy?' 'Do you feel that caffeine increases your mental alertness?' (See original draft for a complete list of questions). To answer these questions, I decided that it would be suitable to provide a number scale from 1-5 where people could tick how strong the effect of the caffeine was. 1 being not being affected at all and 5 being extremely affected. By doing this, I was able to find out whether people felt any of these effects and how strong these effects were.

After this I was able to perform a desk check to see how the questionnaire read, and how the questions flowed from one another. As I was doing this I made notes in note book so as I could then go back and identify areas which I wished to change. For example initially the survey had questions asking how often the respondent drunk caffeine, with options never, sometimes, often, all the time, but I decided that having a numerical value for how many cups/cans of caffeine a respondent drinks per day would give more information, and would allow more in-depth statistical analysis. While I was doing this I was also able to start to think

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about what other questions I could ask for example what reasons do people not drink caffeine. This would allow me to cover a much wider audience in my survey as it would apply to those who do and don't drink caffeine. However, my current questionnaire is only targeted at caffeine consumers.

Before writing up my final questionnaire, I asked some of my class mates to do a pilot survey for me to ensure that the information I was seeking was present and that the flow of the questionnaire was right. For example for question 8 'would you change the energy drink you currently drink for a not caffeinated drink?' I found that by adding 'maybe, please specify what drink you may consider, I would extend the question to find out more specific information on exactly what people's choice of energy drink was and what they may change it to. I also took time to reflect upon questions 4-7 which I had a scale for people to rate how strong they felt the effect of the caffeine was. Labelled number 1 (not affected at all) and number 5 (extremely affected). However, I did not label; any of the numbers in between. I thought about re-writing these questions, by adding the words to show what each number meant and would this make it easier for the respondent. For example: 1 – not affected at all, 2 – slightly affected, 3 – moderately affected, 4 – very affected, 5 – extremely affected. However, after a lot thought I decided to leave it unchanged.

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The results of the pilot survey were recorded in my log book and these showed that I got a 100% return. When I started to do the analysis of this data I was able to conclude that 90% of students who were surveyed did drink energy drinks at school. I was also able to determine that this resulted in 60% of them becoming sleepy in class and dehydrated.

The pilot survey was completed by my friends with similar ideas about the design process. This on reflection may not have been the best approach because they might not have wanted to offend me, by being too critical and so some issues might not have been identified. I think if I was to do this questionnaire again it would be more useful to take a random selection of students at the pilot survey, as this would allow for a better cross section of people to feedback information and so correct some of the errors I may have made this time.

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In my final questionnaire, I had a total of 12 questions which covered how many caffeinated drinks people consume, what type and how often they consumed, what effects they felt, and whether they are aware of the possible long term effects.

The answers to this questionnaire throughout all of my school and maybe other schools will help the Ministry of Health in finding out more about the effects that caffeinated drinks have on teenagers. For example it may be the quantity of caffeine consumed per day i.e different drinks may have greater amounts of caffeine.

I filled out a log book after every class lesson to document the design process that I went through to complete my final questionnaire.