Year 12 Maths with Calculus	Statistical Inference 2.9 - AS91264

Lesson Topic: Sampling

Learning Outcome: To understand what sampling is and why it is used.

Lesson

Students	Teacher
- Enter class	- Welcomes students into class, marks Kamar
- Students read instructions on Google+	- Teacher marking Kamar for any late-comers
- Students to individually take a sample of lollies and record how many of each colour there are. Then create a graph to visualise this.	- Circulating room and explaining instructions to students who need help
- Students to get into 8 groups and take a sample of the lollies, recording the colour and then creating a graph.	
- Students to get into 4 groups and take a sample of the lollies, recording the colour and then creating a graph.	
- Students to engage in discussion	- I will collate all the class data to create a bar graph to see the frequency of all the colours in the whole class and facilitate discussion about what we see.
- Students to use Padlet to answer: What is sampling?; Why do we use sampling?; What happens as our sample size increases?	- Call to attention and then explain Padlet activity

Reflection

I had a lot of fun with this lesson and I think the students did too. They were very excited by the big box of sweets and were immediately engaged. I choose to sample sweets in wrappers because they are more hygienic than unwrapped jellybeans. I expected our sample to tend towards an even amount for each colour. I was surprised that this was not the case, even with a reasonably large sample of 257. I look forward to the manufacturer's response.

The standard that we are focussing on, Statistical Inference 2.9, looks at comparing quantitative variables (things that you can measure). In this lesson we compared categorical variables (the colours). I would have preferred to take a sample and compare quantitative variables but I also wanted the data collection to be straightforward and quick - so we could do do three different sample sizes.

After watching the video of the lesson I realised how confusing my instructions on how we would take our own sample, then join into groups of two and then join into groups of four. Rather than focussing on how many students were grouped together, I should have focussed on the different sample sizes that would occur.

Next time I would change my instructions to - "Take a sample of about 15 lollies, then join a friend to get a sample of about 30 lollies and then join up with more classmates to get a sample of around 60 lollies." I would also change the tab names on Google Sheets to correspond with this.

Watching the video I heard myself say "I" too many times - "I am going to do this", "What I did", "I am going to send an email". I was taking too much control of the lesson and I should have given the students more voice when discussing the results and the students could have co-create the letter to the manufacturer, rather than it coming from me.