



NUI Galway
OÉ Gaillimh

Numeracy in Health

Kathy O' Sullivan



Background

- Qualified Maths teacher with experience in teaching Maths in Secondary school and also in Further Education
- PhD research investigated how teachers in secondary school can teach for numeracy learning in all subject areas
- National Programme Director of the PDMT
- Maths Education Lecturer in NUIG

Numeracy in Health

- Poor numeracy has been found to severely limit successful transitions from school to work and subsequent employment opportunities, contributing to low self-esteem, poor health prospects, and lack of social and political participation (Parsons & Bynner, 2005)
- Research has pointed to correlational links between numeracy and personal health. Researchers have argued that low levels of health literacy reduces a person's ability to read health information and understand instructions, leading to problems with making sound health decisions (Goos et al., 2021)



What can you do?

- As educators, we need to be aware of where the numeracy opportunities around us.
- Numeracy appears in all aspects of life and today we will look at some examples of numeracy in Health



Numeracy in Health

- Making the right choices for a healthy lifestyle
- Understanding numeracy in health
- Important to understand nutritional information and information portrayed in the media

Nutrition and Health Claims

A comparison may only be made between foods of the same category, taking into consideration a range of foods of that category. The difference in the quantity of a nutrient and/or the energy value shall be stated and the comparison shall relate to the same quantity of food.

(Advertising Standards Authority for Ireland, 2006)

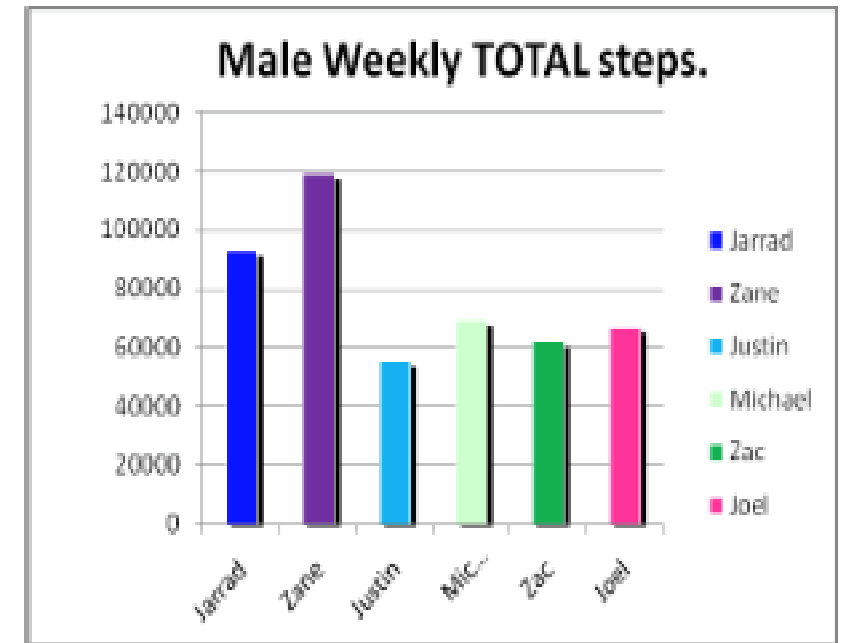


Calculating the level of activity and are our Fitbits accurate?

Students investigated their levels of physical activity over a week.



- Measured via pedometer which the students wore for a week.
- The number of paces walked each day was entered into a shared Excel spreadsheet and converted to km.
- Students analysed their own data using Excel and compared the results with other students.
- Students began to pose their own questions of the data.



Energy drinks vs your morning coffee?



Caffeine content in different foods and drinks:

An espresso (60ml)	80mg
A cup of filter coffee (200ml)	90mg
A cup of black tea (220ml)	50mg
A standard can of cola (355ml)	40mg
A standard can of “energy drink” (250ml)	80mg
A bar of plain chocolate (50g)	25mg
A bar of milk chocolate (50g)	10mg

EFSA, 2015



The healthier options?



Healthy Snacks?



If there was originally 26.7grams of fat per hundred grams in walkers crisps, how much fat is there now?

How much fat was there before it was reduced?

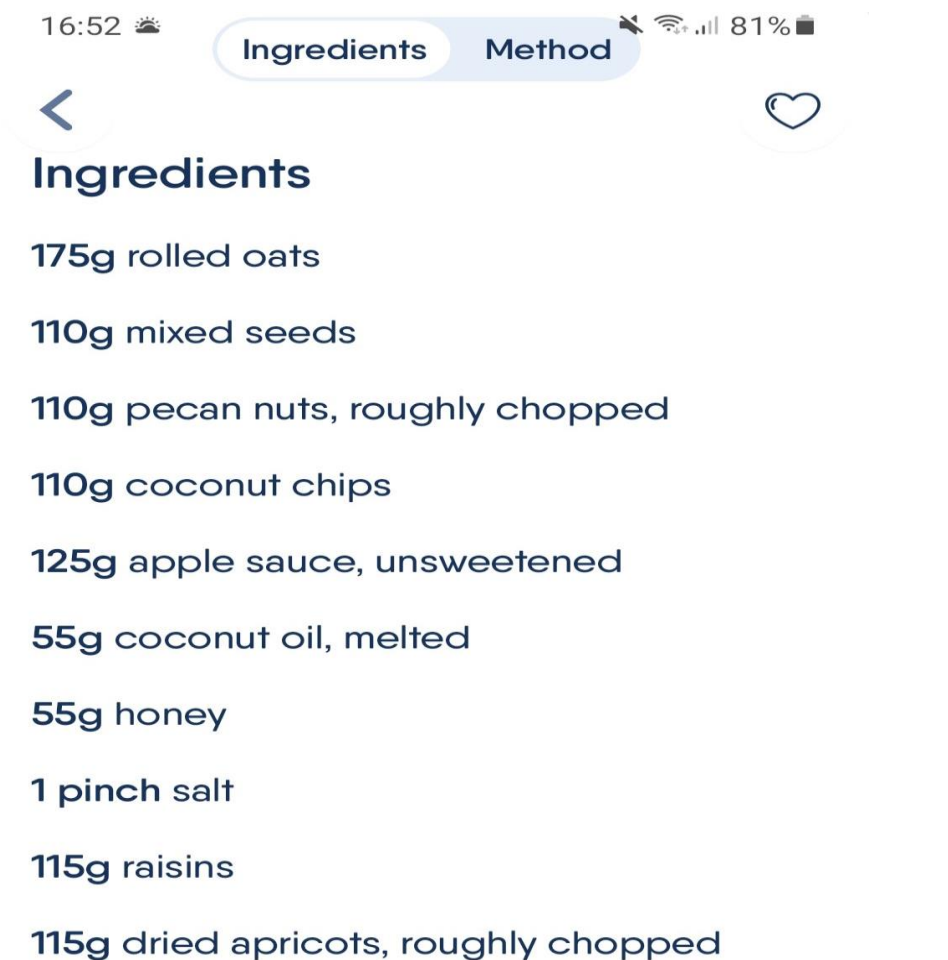
30% less fat



Vegetable snacks or Mr Tayto?



Becoming Sugar Smart



- Diabetics can consume sugar, but people with diabetes are recommended to consume **no more than 25 g daily** . This is half the recommended amount for those without diabetes
- Can you calculate the sugar content of this granola recipe?



Choosing the healthier options?

- Less fat does not necessarily mean healthier
- We need to develop our students numeracy skills so that they are confident in understanding what decisions they can make to live a healthy lifestyle.
- Looking at the nutritional information is very important to make sound and justified decisions



Numeracy in Health Media

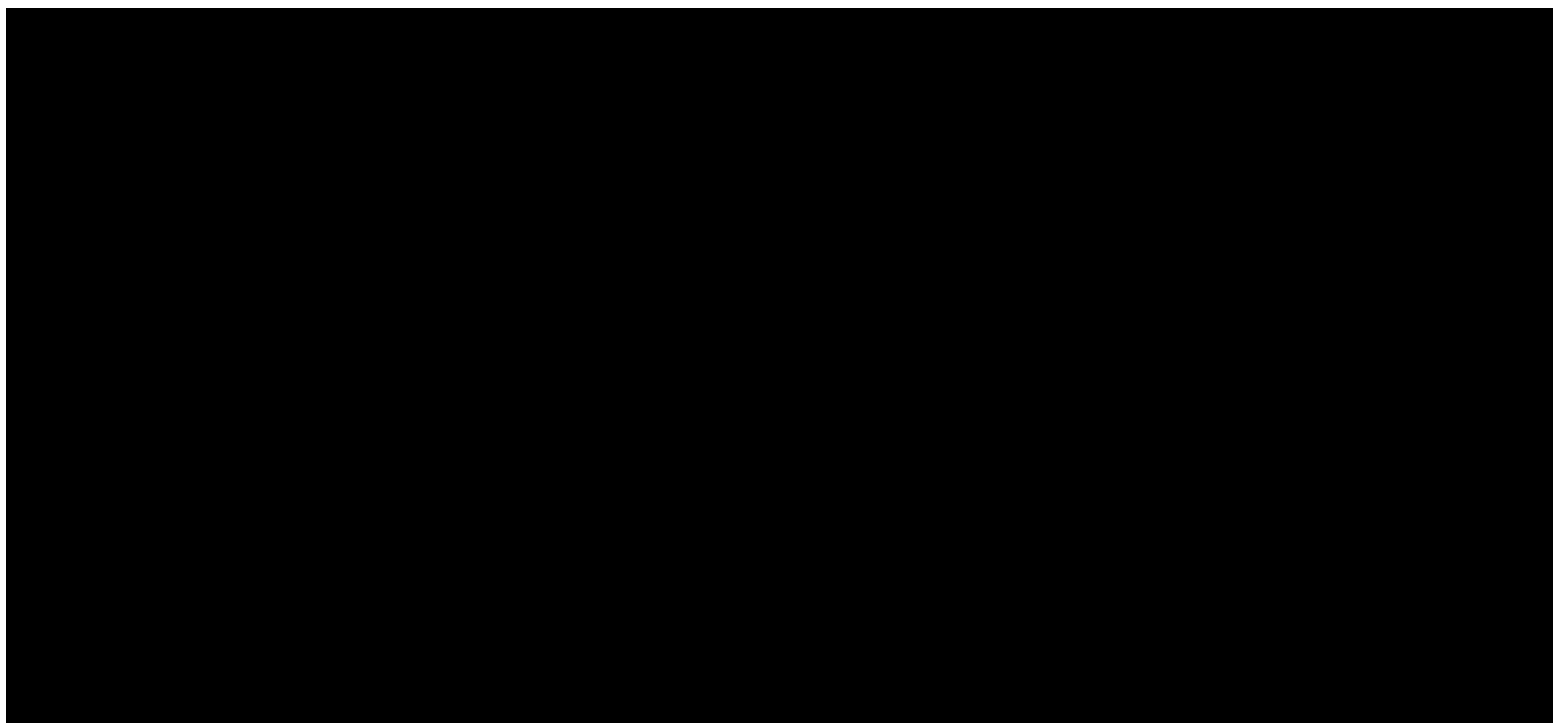


Questions to consider

- What is the graph telling us?
- Does it make sense?
- Can you fix the graph?
- What needs to change?



Joe Wicks Video



How realistic was this Joe?



How Long will it take?

Is there a general formula?



Numeracy messages

- Numeracy is engrained in everything we do
- Our job is to promote numeracy in other contexts and to do so with confidence and examples of where we use numeracy in the real world



So the healthier options....





NUI Galway
OÉ Gaillimh

Thank you for listening.

Contact Details:
Kathy O' Sullivan,
School of Education, NUI Galway
Kathy.osullivan@nuigalway.ie

