



# WHY IT MATTERS...

## PERSONAL STATEMENTS ACTIVITY



Loughborough  
University

### Why It matters to you - a Personal Statement activity example

#### Step 1: IDENTIFY

Find research related to the subject you are interested in.

Subject	Maths
Title and references (and url)	Your initial thoughts on the research
<p>Storm surge early warning system</p> <p>Loughborough Uni Maths dept Dr Emiliano Renzi</p> <p><a href="https://www.lboro.ac.uk/departments/maths/research/researchsnapshots/storm-force/">https://www.lboro.ac.uk/departments/maths/research/researchsnapshots/storm-force/</a></p>	<p>Maths making a life saving difference around world.</p> <p>Real world applications.</p> <p>Environmental impact.</p> <p>Exciting.</p>

#### Step 2: UNDERSTAND

Read about the research and make some notes about what its impact is.

What is the research about?	<p>Storms create larger waves – called “storm surges” – they can be several metres taller than ordinary waves. They can crash over sea walls and defences, flooding the shoreline and any buildings close to the seafront. Repairing the damage that flooding can be a slow and very expensive.</p>
What have the researchers found?	<p><b>Researchers working on a storm surge early warning system.</b> Violent storms at sea make large waves - strong winds blow towards the shore. Makes a noise in the water that we can hear and record as sound waves called “acoustic signals”. These signals travel through the sea much faster than the water reaching land long before the waves. Studying these signals, Dr Renzi and his researchers are learning more about storm surges. They are using maths and computer science to do this.</p>
What are the potential outcomes of the research? Why does that matter?	<p>A reliable method of forecasting storm surges that would give people time to take action – saving lives and money.</p>



# WHY IT MATTERS...

## PERSONAL STATEMENTS ACTIVITY



Loughborough  
University

### Step 3: EXPLAIN

Think about why this is of particular interest to you

Why did this research catch your attention?  
Why is it important to you? What does it tell you about your proposed subject?

It's about understanding the environment and using maths to help solve problems in a very real way.

Its offering solutions that can be used by people living under threat from the storms.

Its real.

Using maths at its best to understand and explain our world.

### Step 4: Personal Statement

Write a paragraph to illustrate your own interest in your subject based on the research you have analysed. You could use this as part of your Personal Statement to evidence your subject knowledge and curiosity.

Think about how this research fired your curiosity and belief that your subject choice is important.

I believe that maths helps us to understand and to explain our world ... fascinated by environment... use maths to find solutions ... maths is fundamental in understanding world's problems ... dealing with and slowing environmental impacts ...

Reading about the research ... Dr Emiliano Renzi and his team ... using the language of maths to understand more about storm surges .... very practical, life changing research ... real difference in the world .... consolidates my belief that maths can help us solve the world's problems.