Correlation Street

The mathematical soap opera that is my classroom...

<u>Avalanche</u>

"Man gave names to all the animals," as Bob Dylan once sang, a reference to Adam's creativity in Genesis. Naming was one of the first skills he required, coming in a whisker after listening and gardening. A skill we all need, and one that our computers encourage – how are we to name the myriad files we create each year? And in the classroom, we maths teachers need to be able to name phenomena.

I came across the wonderful word 'lubbing' the other day, short for 'looking up in the back of the book.' In a maths classroom especially, this is an activity that deserves a name. There is here too a pleasing match between the process and the name. 'Lubbing' for me carries connotations of 'lubrication', which judicious use of the answers can certainly provide. The word also contains a touch of 'land-lubber' – someone too cautious, maybe, to set out onto their own mathematical ocean unaccompanied.

The literature of mathematics education encourages us to become classroom namers. Words can suggest extended metaphors, can become resonant labels that we can share with others, and can be gathering points for discussion. The collection of 'accounts-of' creates a phenomenon, one that has possibly passed unnoticed before.

Let me describe something that happens in my own classroom, and surely in everyone's. A student calls me over, and I examine what they are doing. I think I can see a key weakness in their argument. Often it needs no word from me (preferably it needs no word from me), just a friendly finger. Then there is the "Aaahh!"

How should the teacher respond? Should he stay and help in the reconstruction that must follow? Surely the best way forward is to allow the student to reconstruct for themselves, perhaps in the company of their colleagues, while the teacher heads off swiftly to the next raised arm.

Can the "Aaahh!" be faked? If you like me you have seen *When Harry Met Sally*, you will have to agree that in some contexts an "Aaahh!" can be faked most convincingly. But in a maths classroom, most of the time, I believe the "Aaahh!"s are genuine.

I call the "Aaahh!" moment 'an avalanche' - *an overwhelming influx*, my dictionary says. 'Avalanche' comes from 'avaler' – Old French for 'to descend' - and that fits too. The solution has somehow 'got above itself'. 'Avalanche' can also be a verb – the teacher 'avalanches' the problem for the student, to produce that precious "Aaahh!"

What else does my dictionary tell me? 'An avalanche' – a shower of particles produced after a high energy particle meets matter. The results of an impact produced by something tiny, but extremely intense. So the teacher who desires to avalanche effectively must aim their 'particle' carefully; the greater the precision and focus, the wider the shower produced.

Is my naming here fanciful, trite, grandiose maybe? Is the phenomenon it notices so quotidian as to be unworthy of the honour? Maybe if we noticed the everyday more and accorded it greater respect, we would reap surprising rewards. We should all, maybe, aspire to the following:

> Discovery consists of seeing what everybody has seen, and thinking what nobody has thought. (Albert Szent-Gyorgyi)

Correlation Street is a mixture of what happens, what I would like to happen, and what I am glad does not happen in my classroom.

Jonny Griffiths teaches mathematics at Paston College, Norfolk.

www.jonny-griffiths.net