

# A Glance at A Couple of Maths' Weakish Links

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- Conventional Post-16 Curriculum Splits :
  - (i) Theory and Techniques
  - (ii) Skills - variously described as :  
“Key Skills”, “Transferable Skills”, “Graduate Skills”
- We Focus on Two Sets of Skills in particular :
  - (i) Corroboration Skills – Only a Mention
  - (ii) Communication Skills – Our Principal Concern

- Skills Issues :

Skills usually under-analysed

Skills often under-rehearsed

- Frequent Responses on asking “Why so?”:

In 16 – 19 : “no time”, “not examined”

In H.E. – “not maths”, “not proper maths”,  
“not real maths”

- Communication Failures can be Expensive :

Visualise quantitative decisions being made at National level involving two groups of personnel : the ultimate decision-makers and the data-holders. Let us speculate that both groups have studied maths up to the age of at least 16.

Examples of situations in which things appear to go wrong abound in the proceedings of the House of Commons Public Accounts Committee (PAC). In one example, the “waste of £74m” re the design of UK’s next aircraft carrier was ascribed to decisions based on “immature data” and “flawed assumptions”.

- Our Challenge !

What goes wrong?

- possibly a lack of mutual understanding on the part of the decision-makers and the data-holders

Why does it go wrong?

- possibly lack of early recognition of the need for some mutual understanding

Where might the fault lie anyway?

- possibly in the historically minimal relevance ascribed to transferable skills in the delivery of the various mathematical curricula

- ... and another Challenge –

A worrying public image of Mathematics :

Richard Bacon and Christopher Hope are co-authors of “Conundrum: Why every government gets things wrong and what we can do about it” – Biteback 2013.

In it they write of PAC economists “fleeing towards the respectability and internal logic of mathematics, becoming **less interesting and less useful** as a result”.

Really?!

How might we mathematicians remedy this?