

Unlock the secret ingredient :

Applying maths vocationally to produce an effective workforce.

Whilst interviewing an employer for a research project in 2017, one simple question managed to flip thinking and focus about the embedding of maths vocationally. This questions posed a consideration to set the challenge for this paper; looking at ways to embed maths vocationally to support wider ability in a new workforce for the 21st century.

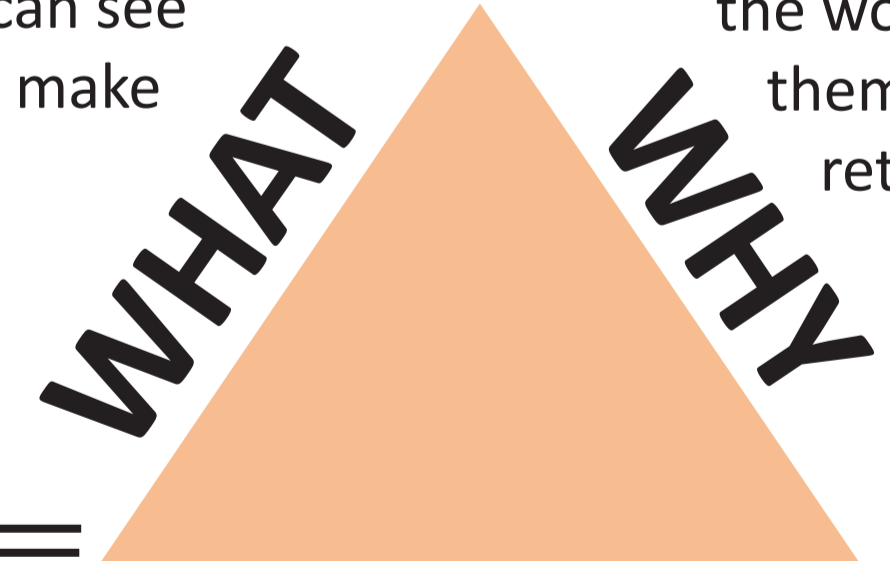
It is clear from talking to learners that they value the skills for employment and can see the clear links between activities that make them more employable and gaining valuable employment.

How can we as teachers embed vocational maths effectively?

So why care enough to keep going and dig deeper into this subject? the main goal is aiming to find solutions that meet the needs of all stakeholders, specifically the students and employers above all else?

For the authors of this paper it was clearly about a vocational responsibility to provide a suitable education that was fit for the purposes in an evolving society; to future proof the workforce of the next 50 years keeping them work ready to their own retirement age.

Why should we do this when we have maths classes?



Using focus groups and interviews, the research lead to the development and testing of these ideas, the project arrived at exploring the development of maths in the context of basic accountancy; invoicing, ordering, billing and working out hourly rates and time sheets.

Using a case study of Level 3 photography students to establish maths areas for development; creating a short series of lessons to fully assess the needs and establish the students' confidence levels throughout the process. The hope is that this will provide and support an interlinked maths and vocational Study Programme.

Early findings:

Early findings have shown a positive response from the learners that have trialed the embedded vocationally focused maths content. The study uncovered a range of subjects that transcended many vocational areas and needed little specialist knowledge of vocational teaching staff.

Impact:

Other teaching staff in the testing institution are keen to adapt and apply the concept to their own curriculum in the art and design school and appreciate the way it has been developed to need minimal prior maths knowledge by the vocational teaching staff with plans to include the research findings in future CPD events.

Summary:

- Teaching maths in this way engages learners in their work with a key focus on employability
- Employers not happy with the application of maths in a vocational context
- Embedding improves maths knowledge and application
- Embedding maths also impacts on a wider culture leading to improved retention and awareness of being prepared for working life.
- Teaching maths needs specialist knowledge – Many staff feel they are not confident or capable of teaching maths in vocational subjects

Further Reading:

- Casey et al (2006) You wouldn't expect a maths teacher to teach Plastering, London: NRDC
- Mathematical needs. (2011). London: ACME.
- Wolf A. (2011) Review of Vocational Education –The Wolf Report, London