

# Practical learning for life

## Head, heart and hands

Centre for Real-World Learning  
Comino Foundation

Prof Bill Lucas  
@LucasLearn



UNIVERSITY OF  
**WINCHESTER**







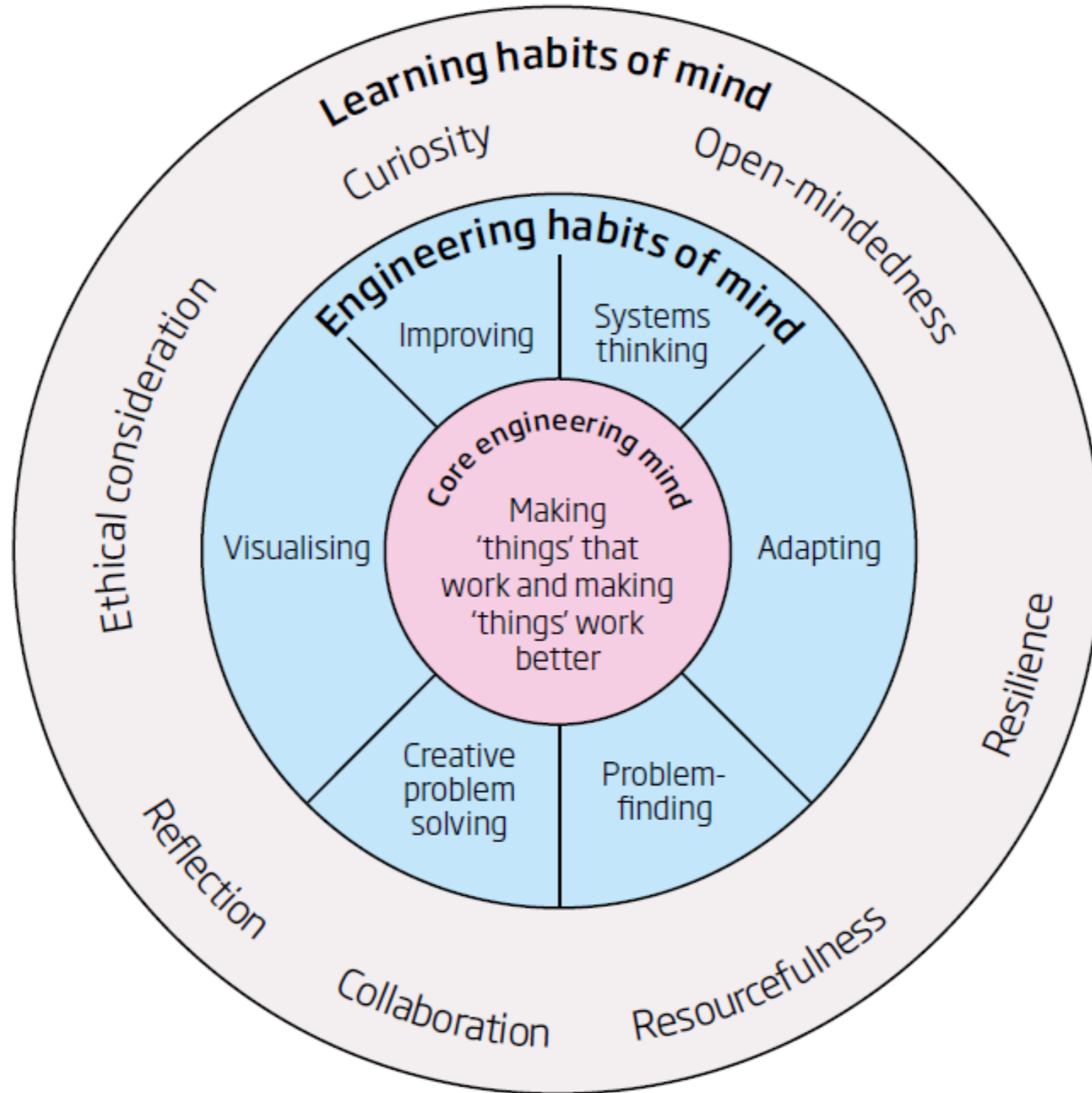


### Thinking like an engineer Implications for the education system

May 2014

### Learning to be an engineer: the role of school leadership

October 2018



### Learning to be an Engineer Implications for the education system

March 2017

### BIG IDEAS: THE FUTURE OF ENGINEERING IN SCHOOLS.

Institution of MECHANICAL ENGINEERS

With support from



LEADING THE CHANGE

Improving the world through engineering





## Reimagining practical learning in secondary schools: A review of the evidence

**Bill Lucas and Janet Hanson**

October 2021



## The Derby High School, Bury

### Headlines

- Resilience
- Students as leaders
- Cultural capital

The Derby High School is a mixed, 1116 community school located in Bury, Greater Manchester.

Making learning whole underpins The Derby High School's (TDHS) aims and ethos of creating a RESILIENT school grounded in the 7Rs: 'We ensure our students are Ready, Respectful, Resourceful, Reasonable, Responsible, create the Right Impression and, most importantly, are Resilient.'

The Derby High School Resilience Curriculum is based on 10 principles that underpin opportunities to engage in practical learning in all areas of the curriculum.

A further important focus for practical learning at TDHS is a commitment to 'teaching for creativity' with the use of creative pedagogies that enable young people to experience real world learning and become more aware of their own potential.

The school's membership of the North West Comino Creative Consortium (NWCCC), a regional partnership of six schools supported by the Comino Foundation, has supported a rich co-creation of learning opportunities and experiences.

[Derby High School website](#) >

Creative practical learning through the arts supports the core curriculum

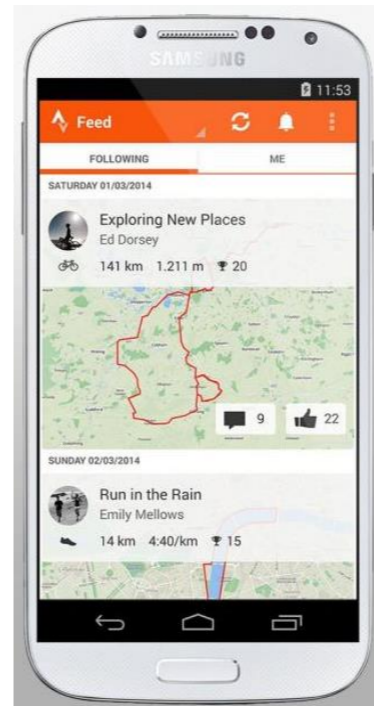
*Wherever possible, we try to make learning real. Instead of just telling students about the effects, we want to be able to show them, we want them to be able to explore, investigate and make informed decisions for themselves.'*

*Lynn Provoost, Assistant Headteacher for Arts and Sports, Personal Development and Partnerships*

Download case study







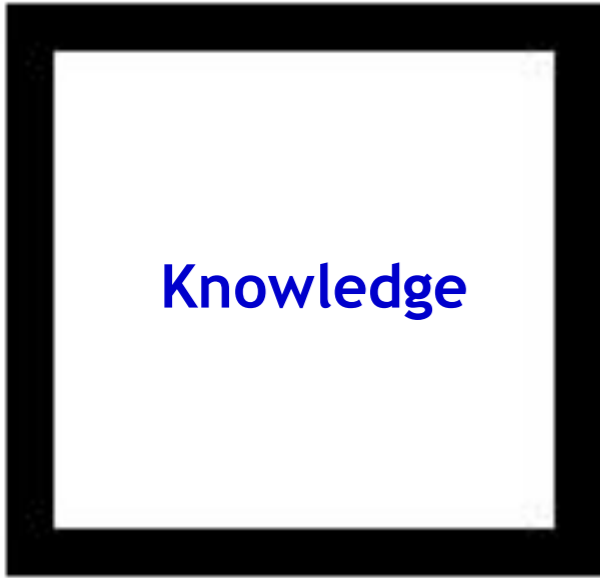
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# Creativity... Imagination

...the uniquely human capacity to envision that which is not, and therefore the fount of all invention and innovation.

J.K.Rowling. Speech at Harvard University, 2008



Know what



Know how



Know what +  
how + do it

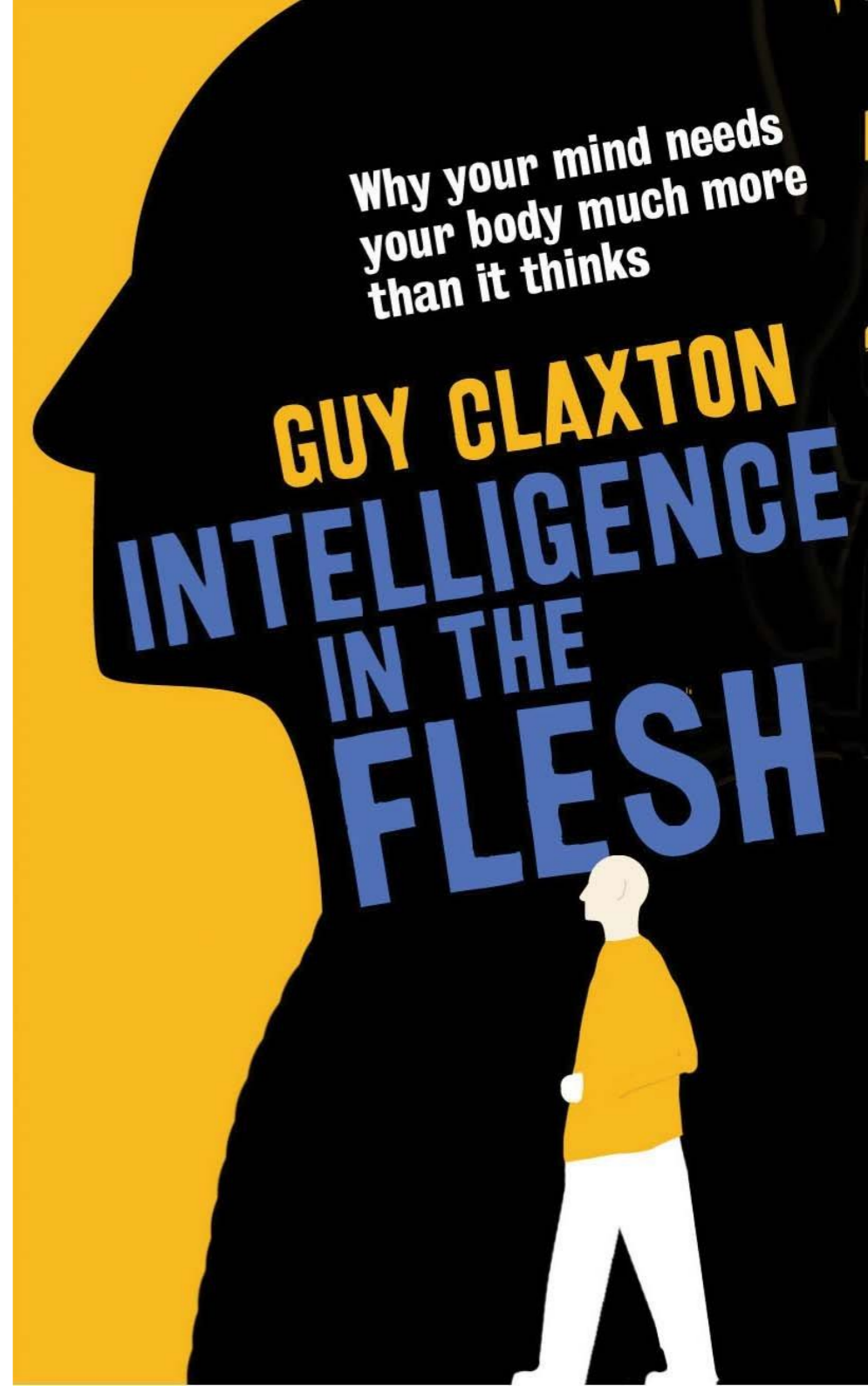


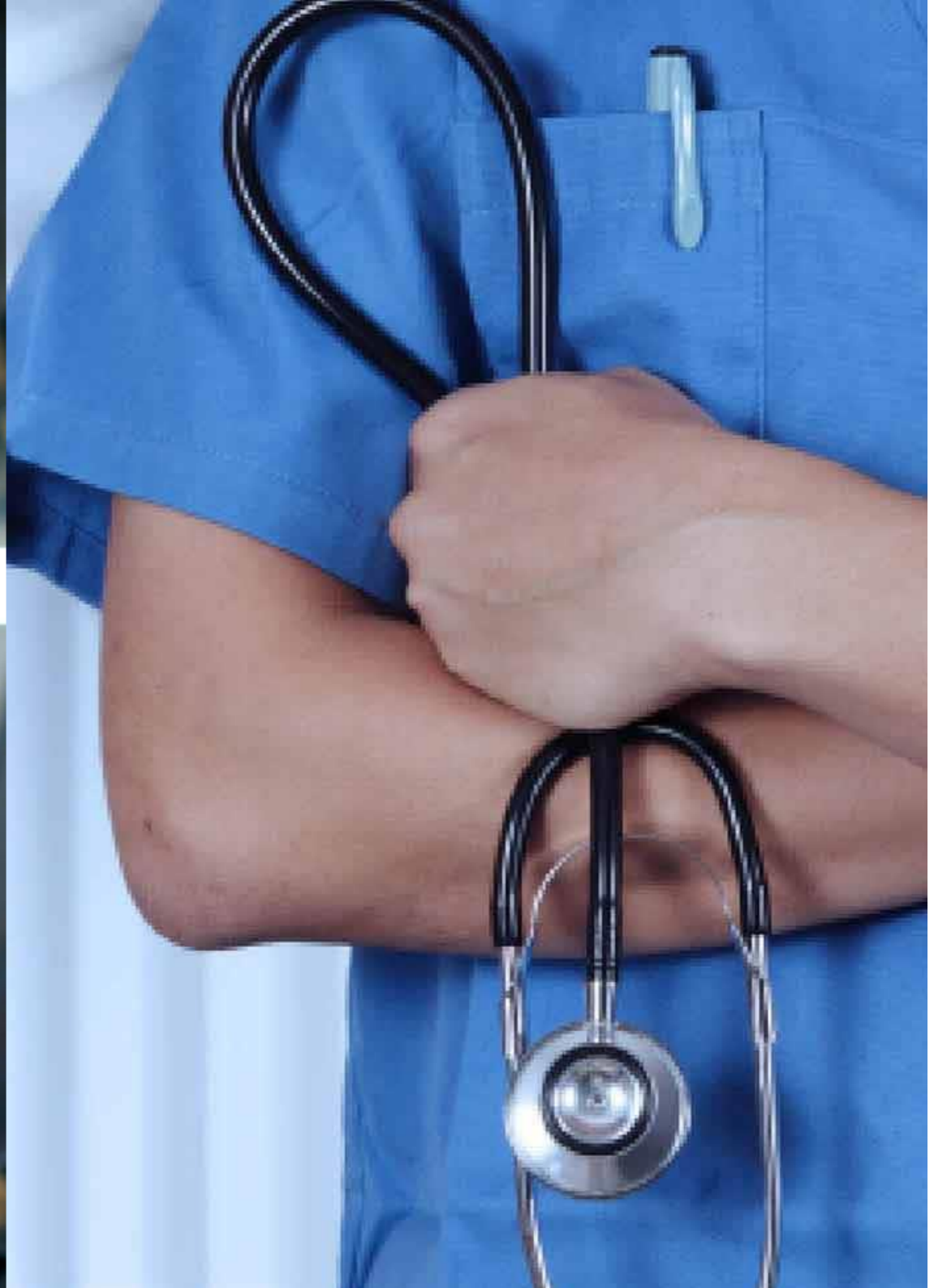
Know what +  
how + why +  
when +  
routinely do it  
without  
thinking



# Head, heart and hands

Our bodies do not just intrude on the way we understand and produce language. They influence our attempts to interact intelligently with the world around us. The interconnection of the abstract and the concrete reveals itself in how we behave, as well as in what is going on in our minds.









# Rebalance head, heart and hands

One form of human aptitude - cognitive-analytical ability, the talent that helps people to pass exams and then handle information efficiently in their professional lives - has become the gold standard of human esteem.

David Goodhart



**H E A D**



**H A N D**



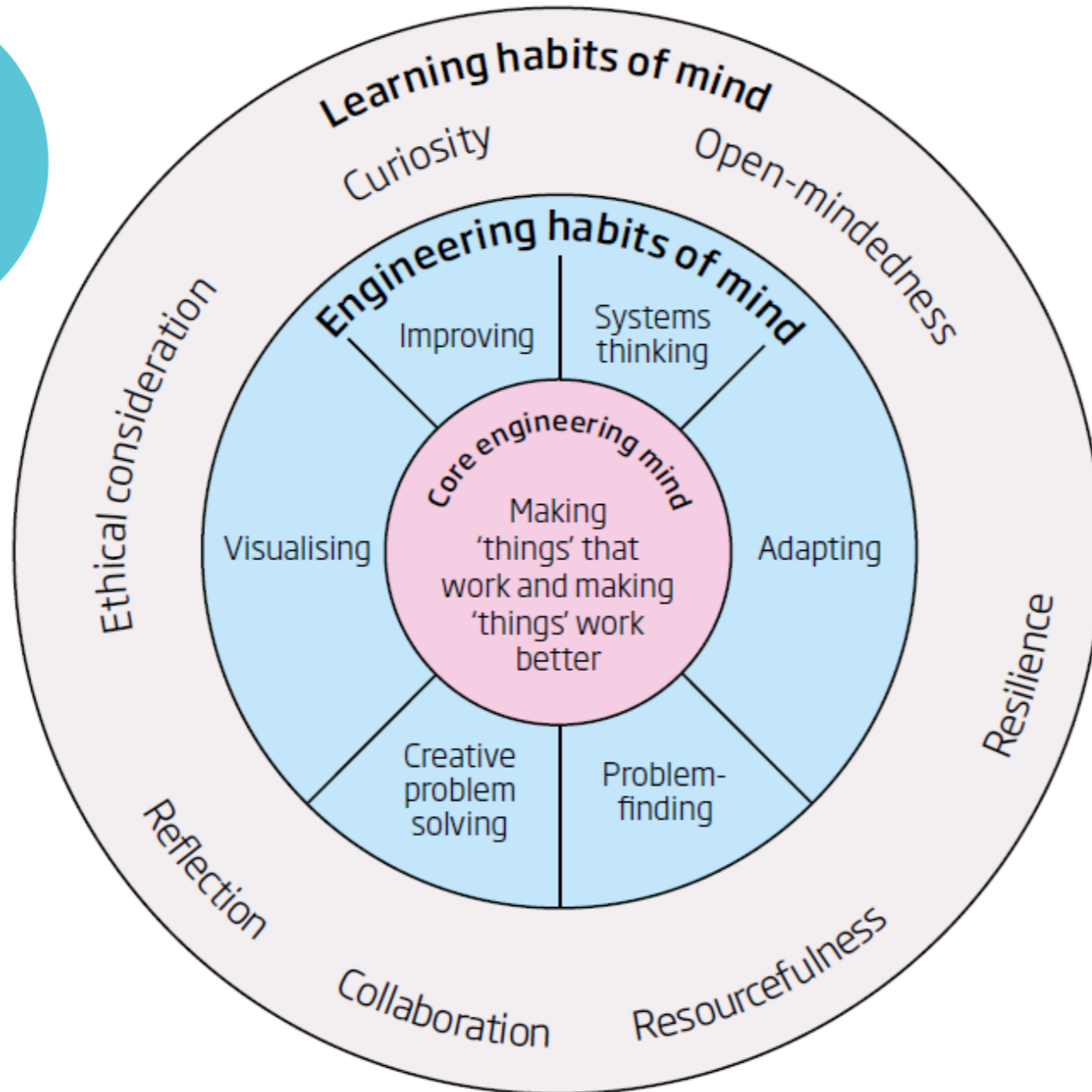
**H E A R T**

The Struggle for Dignity and  
Status in the 21st Century



# Embed habits from Primary school onwards

Step  
2



Thinking like an engineer  
Implications for the  
education system

May 2014



# Step 3

# Evidence head, heart and hands



**Harriet Smith**

I am a Year 13 student who has a passion for science and is looking to study engineering at university...

[+ My Portfolio](#)



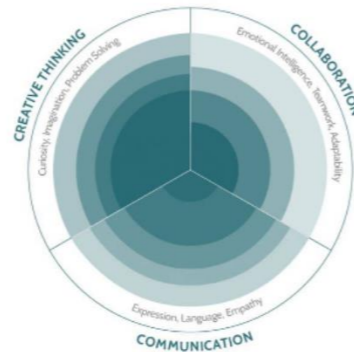
[+ My Interests](#)

- Science
- Photography
- Digital
- Running
- Psychology
- Nature

## Draft Rethinking Assessment Learner Profile



### THE 3Cs OF SUCCESS



### ME AS A LEARNER

**What are my strengths?**  
I like to play with things - to break them down and build them up. Whether that's ideas or physical things. So I like taking apart mobile phones and seeing how they work. I think my real strength is being able to see the detail and how it links to the big picture.

**What do I want to change about my community / the world?**  
Girls in my area have very little sport they can do. There are plenty of sports aimed at boys but far less for girls. In the last five months I have got together with my friends to campaign for change and to make the case to the local council.

**What do I need to work on?**  
I find it hard sometimes to work in a team. I am so keen to get on with things I get frustrated with those who want to slow things down. So I am working hard and making sure everyone including me has a defined role that they can get on with.

**What motivates me?**  
My younger brother has learning difficulties and from a young age I've supported him. I can see how he struggles and that he is not always understood. This has given me a passion for doing something meaningful in my life that helps others overcome difficulties.

### BUILDING BLOCKS

- Literacy
- Numeracy
- Digital Skills
- Oracy

### COURSES

- MAJOR COURSES**
  - > Biology
  - > Physics
  - > Design
- MINOR COURSES**
  - > French
  - > Coding
- APPLIED COURSES**
  - > Cooking
  - > Football coaching
  - > Real world project at advertising company
- INTERDISCIPLINARY COURSES**
  - > Climate change
  - > Migration

### PERSONAL PROJECT

My Extended Project Qualification (EPQ) was to build a drone that could deliver medicines to those who need emergency supplies.

[Read more](#)

**TESTIMONIALS**

"Harriet did a real world learning placement with us for 6 months and showed what a great problem solver she is. She was so skilled at breaking down a project into the parts that really mattered and working systematically through them to achieve a high quality outcome."

Jenny Tibor, head of product development

**MY BEAUTIFUL WORK**

**MY ACHIEVEMENTS**

- Duke of Edinburgh Bronze
- Lamda Drama Award
- Church Youth Leader

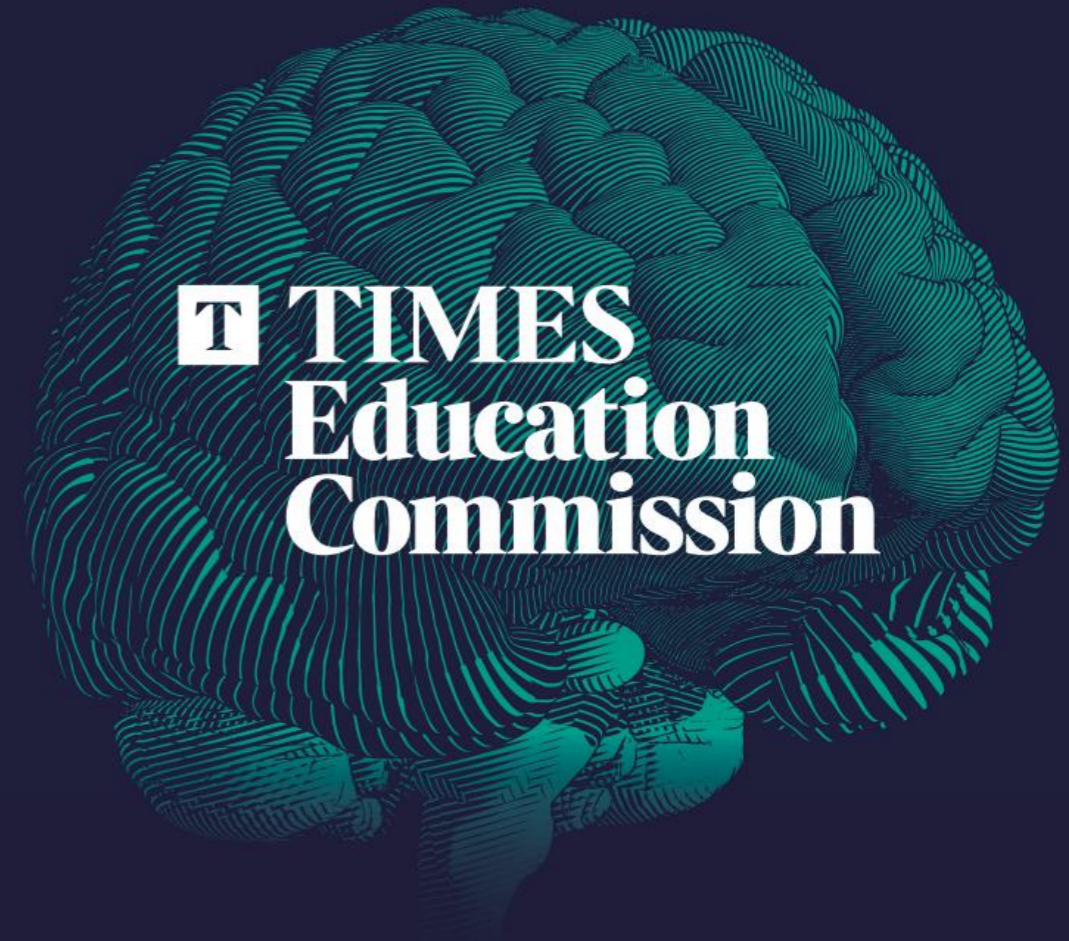
## Rethinking assessment in education: The case for change

BILL LUCAS



The Commission proposes that this new qualification should also be supported by a Digital Learner Profile, a personal online portfolio for every student.

The Commission proposes that this new qualification should also be supported by a Digital Learner Profile, a personal online portfolio for every student. It would include academic qualifications alongside a record of other achievements: video footage of a pupil playing a musical instrument, photographs of projects they have worked on or details of expeditions, volunteering and work experience. A prototype of the digital profile already exists.



**T** **TIMES**  
**Education**  
**Commission**

**BRINGING OUT THE BEST**

How to transform education and  
unleash the potential of every child



## Practical learning is:

**Learning that is whole, involving head, heart and hands working in harmony, when teachers use carefully chosen strategies that encourage learners to:**



- experience and navigate real-world challenges
- acquire and apply their knowledge in a range of settings
- explicitly develop skills and dispositions for lifelong learning.

Web

E-mail

Twitter

<https://winchester.ac.uk/realworldlearning>

<https://rethinkingassessment.com>

<https://cominofoundation.org.uk>

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