



# Curiosity and Powerful Learning

Professor David Hopkins

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## The story is always about moral purpose

I know if I need extra help or to be challenged to do better I will get the right support

I can get the job that I want

My parents are involved in the school

I know what good work looks like and can help myself to learn

I belong here

I can work well with and learn from many others as well as my teacher

I know how I am being assessed and what I need to do to improve my work

I know what my learning objectives are and feel in control of my learning

I get to learn lots of interesting and different subjects

I use computers to help me learn

All these.. whatever my background, whatever my abilities, wherever I start from





## OUR GOAL -


We intend to help our students:

- acquire useful and important bodies of knowledge
- become powerful learners by expanding and making articulate their repertoire of learning strategies
- become fine, caring and principled citizens

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 CURIOSITY AND POWERFUL LEARNING

## THE CHALLENGES OF THE FUTURE

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1350 - Classroom at the University of Bologna , Laurentius de Voltolina


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## The Right Direction




8 | THE SECRET OF HIGH PERFORMING SYSTEMS: WHAT TO DO

“What these high performing systems (and schools) do is focus relentlessly on:  
**ensuring high instructional quality**  
 while  
**reducing variability** in the quality of instruction for every student”



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POWERFUL LEARNERS...

#### POWERFUL LEARNERS...

- **acquire** useful and important bodies of knowledge
- **become** powerful learners by expanding and making articulate their repertoire of learning strategies
- **become** fine, caring and principled citizens

#### POWERFUL LEARNERS...

- **integrate** prior and new knowledge
- **acquire and apply** a range of learning skills
- **solve problems** individually and in groups
- **learn** from their successes AND failures
- **evaluate** conflicting evidence
- **think** critically
- **accept** uncertainty and difficulty

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**Curiosity** matters...academic success...

job performance...

relationships...

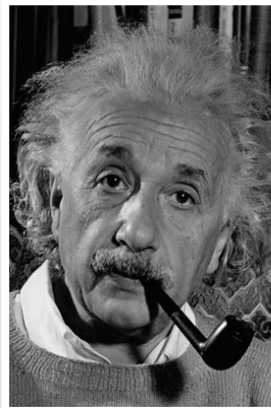
life satisfaction...

problem-solving...

longevity...

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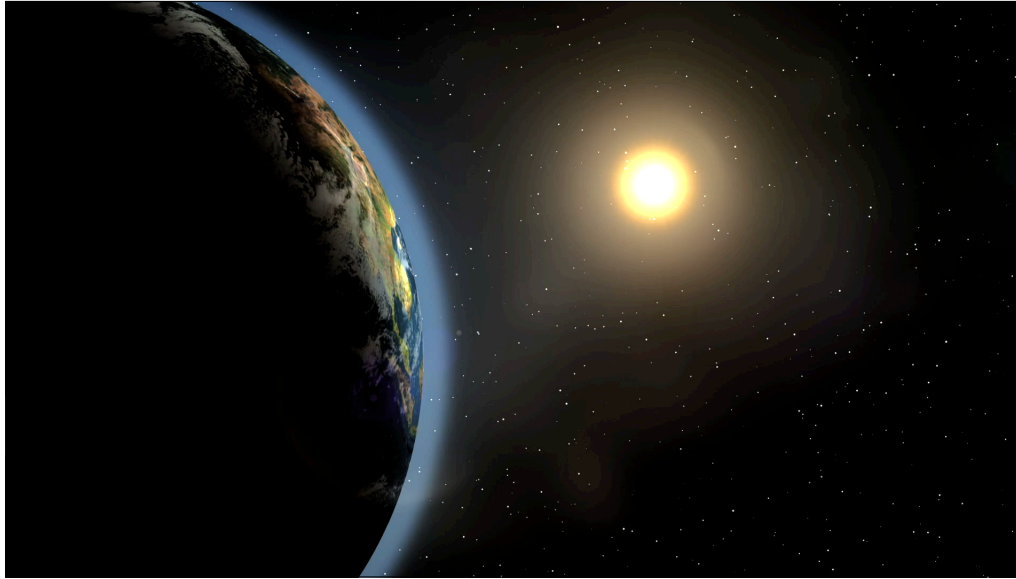
“Curiosity is a delicate little plant,  
which aside from stimulation,  
stands mainly in need of freedom”



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**If we want our students to be **CURIOUS**,**  
**we have to teach them**

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### THE INSTRUCTIONAL ROUNDS PROCESS WORKS LIKE THIS

Rounds visit to focus on teaching and learning in the school

Small groups visit a rotation of classes and descriptive evidence is gathered

Analyse evidence taking into account school context

Develop Theories of Action

Visitors provide structured feedback to school and teachers

Host school uses the Theories of Action as a basis for planning ongoing professional development.

### FIVE LESSONS FROM INSTRUCTIONAL ROUNDS

- 1 **Similar Theories of Action** are defined and implemented in **most schools**, despite differences in schooling phases and contexts
- 2 This is not a **'pick and mix'** approach. It's necessary to integrate all Theories of Action into a teacher's professional repertoire
- 3 All Theories of Action are characterised by teaching approaches with **inquiry at their centre**
- 4 Some Theories of Action are about the **whole school**, and some are about the **individual practice** of teachers
- 5 All Theories of Action have a high level of **empirical support** in the research literature.

THE STORY OF OUR INSTRUCTIONAL ROUNDS

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As a result of our “inside-out” work on Instructional Rounds we have identified ten Theories of Action that when taken together **Six Theories of Action for the Teacher** have a positive effect on the quality of teaching and learning.

**Promote Curiosity & Authentic Relationships**

**Emphasise Enquiry Focused Teaching**

**Adopt Consistent Teaching Protocols**

**Adopt Consistent Learning Protocols**

**Harness Learning Intentions, Narrative & Pace**

**Set Challenging Learning Tasks**

**Frame Higher Order Questions**

**Connect Feedback to Data**

**Commit to Assessment for Learning**

**Implement Cooperative Groups**

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### CURIOSITY & POWERFUL LEARNING: EFFECT SIZE

**The Effect Size barometer**

A barometer like this accompanies each theory of action on the following pages. They impede learning. Some learning is attributed to developmental effects – as children and young people develop, they develop new learning capabilities. Harste tells us that learning occurring in the orange zone is learning that would probably occur even if there was no schooling.

The yellow zone includes teaching strategies leading to learning outcomes that would occur in a typical year of schooling.

As teachers and school leaders, our task is to apply strategies that fall in the yellow and blue zones. They are high value strategies. Compared to other strategies, they have the largest effect size – that is, they make the biggest difference for our students' learning.

**Effect Size for Higher Order Questions**

ES = .73

Control group

Experimental group

Standard Deviations: -3sd, -2sd, -1sd, 0sd, 1sd, 2sd, 3sd  
Cumulative Percentages: 2, 16, 50, 84, 98, 99.9

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## Four Whole School Theories of Action

### Prioritise High Expectations & Authentic Relationships

If schools and teachers prioritise high expectations and authentic relationships, *then* curiosity will flourish

### Emphasise Enquiry Focused Teaching

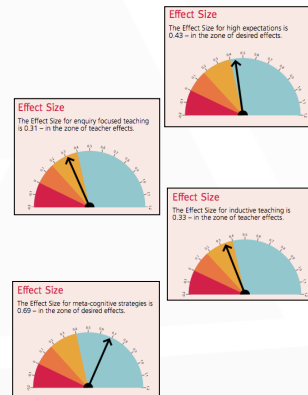
If enquiry is a defining characteristic of a school's culture, *then* the level of student achievement and curiosity will increase

### Adopt Consistent Teaching Protocols

If we adopt consistent teaching protocols, *then* student behaviour, engagement, learning and curiosity will be enhanced

### Adopt Consistent Learning Protocols

If we adopt consistent learning protocols in all classes, *then* all students will experience an enhanced capacity to learn, and to develop skills, confidence and curiosity



## Six Theories of Action for the Teacher

### Harness Learning Intentions, Narrative & Pace

If we harness learning intentions, narrative and pace so students are more secure about their learning, and more willing to take risks, then achievement and understanding will increase and curiosity will be enhanced

### Set Challenging Learning Tasks

If learning tasks are purposeful, clearly defined, differentiated and challenging, then all students will experience powerful, progressive and precise learning

### Frame Higher Order Questions

If we systematically employ higher order questioning, then levels of student understanding will deepen and levels of achievement will increase

### Connect Feedback to Data

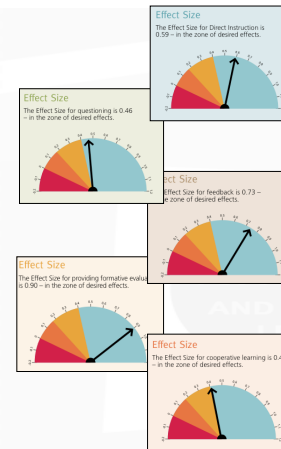
If we connect feedback to data about student actions and performance, then behaviour will be more positive, progress will accelerate, and curiosity will be enhanced

### Commit to Assessment for Learning

If we commit to peer assessment, and assessment for learning, then student engagement, learning and achievement will accelerate

### Implement Cooperative Groups

If we implement cooperative group structures and techniques to mediate between whole class instruction and students carrying out tasks, then the academic performance of the whole class will increase



How students think and learn

Number	Principle	Curiosity & Powerful Learning
1	Students' beliefs or perceptions about intelligence and ability affect their cognitive functioning and learning	<i>Moral purpose</i>
2	What students already know affects their learning	<i>Learning intentions, challenging tasks</i>
3	Students' cognitive development and learning are not limited by general stages of development	<i>Learning intentions, challenging tasks</i>
4	Learning is based on context, so generalising learning to new contexts is not spontaneous but instead needs to be facilitated	<i>Inquiry, challenging tasks, assessment for learning, feedback to data</i>

How students think and learn



Number	Principle	Curiosity & Powerful Learning
5	Acquiring long-term knowledge and skill is largely dependent on practice	<i>Teaching and learning protocols</i>
6	Clear, explanatory, and timely feedback to students is important for learning	<i>Connect feedback to data, assessment for learning</i>
7	Students self-regulation assists learning, and self-regulatory skills can be taught	<i>Learning protocols</i>
8	Student creativity can be fostered	<i>Inquiry, challenging tasks, assessment for learning, feedback to data</i>

## LEARNING EXPERIENCES . . .

I wrote - with Bruce Joyce - some time ago that:

*Learning experiences are composed of content, process and social climate. As teachers we create for and with our children opportunities to explore and build important areas of knowledge, develop powerful tools for learning, and live in humanizing social conditions.*



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# David Hopkins

David Hopkins is Professor Emeritus at the Institute of Education University College London, the University of Nottingham and Chair of Educational Leadership at the University of Bolton.

He is a Trustee of Outward Bound and the charity 'Adventure Learning Schools'. David holds visiting professorships at the Catholic University of Santiago, the Chinese University of Hong Kong and the Universities of Cumbria, Edinburgh, Melbourne and Wales and consults internationally on school reform. Between 2002 and 2005 he served three Secretaries of State as the Chief Adviser on School Standards and Head of the Standards and Effectiveness Unit (SEU) at the Department for Education and Skills.

Previously, he was Chair of the Leicester City Partnership Board and Dean of the Faculty of Education at the University of Nottingham. Before that again he was a Tutor at the University of Cambridge Institute of Education, a Secondary School teacher and an Outward Bound instructor. David is also an International Mountain Guide who despite two new knees still climbs and skis in the Alps and Himalayas.

David's recent book *Exploding the Myths of School Reform*, completes his school improvement trilogy; the previous two being, *Every School a Great School* and *School Improvement for Real*. His series of *Powerful Learning* manuals that provide evidence based protocols to empower leaders and teachers are now available as 'e books' as well as being published by McREL and ACEL. David was recently ranked the 16th most influential educator in the world by the American based Global Gurus organisation.

