

Journeys in creativity

Pat Cochrane
March 22nd 2014
Athens



It is in fact nothing short of a miracle that the modern methods of instruction have not yet entirely strangled the holy curiosity of enquiry; for this delicate little plant, aside from stimulation, stands mainly in need of freedom

Albert Einstein

So why creativity?

- Economic outcomes – competition/innovation
- Pedagogical arguments
- Global citizens.



Creativity
and Innovation
European Year 2009

Pedagogical :

- Schools in **challenging circumstances** – those with a higher than average proportion of pupils eligible for free schools meals, low attainment on entry and high rates of pupil mobility – showed the greatest improvements in: pupils' ability to draw discerningly on a range of data and work collaboratively to solve problems; their reading and writing; their speaking and listening; and their personal development.

Ofsted 2010 Learning: creative approaches that raise standards

- Education for the future – 21st century skills?

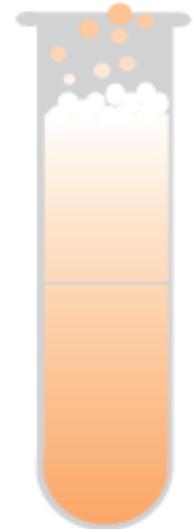
So what is creativity ?

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● ● Making it happen
Making it happen ● Idea ● Doing it
Doing it ● Idea



Resilience Collaboration
Challenge^e Imagination
Experimentation
Inspiration Risk
Reflection



Creativity is **imaginative** activity fashioned so as to produce **outcomes that are original and of value.**

NACCCE(1999)

Students' natural capacity to work imaginatively and with a purpose, to judge the value of their own contributions and those of others, and to **fashion critical responses to problems across all subjects in the curriculum.**

(Facer and Williamson, 2004)

Creativity is dispositional and not a matter of ability. In other words, choosing a creative path in any given situation is less a **matter of ability and more about mindset or attitude.**

Craft(2000)



So what is creativity....?

Creativity happens when you **move out of the comfort zone**, when you are challenged and when you are in contention with yourself and others. Creativity happens when we have **the confidence to make mistakes**; it happens when we are not tied to narrow targets, but allow the **spirit of play and imagination** to inform what we do. It means being open to chance and opportunity, to try the path less travelled, to **be open to doubts and uncertainties** in seeking to generate what is new and original

Fisher and Williams



12 5 2005



Creativity is not...

- Creativity is not grand
- Creativity is not particularly artistic
- Creativity is not necessarily a 'good thing'
- Creativity is not comfortable to be around
- Creativity is not easy
- Creativity is not wacky
- Creativity is not easy to assess
- Creativity does not have its own home in the brain
- Creativity is not solitary
- Creativity is not simply 'released'

So what is creativity?

Creativity is an advanced form of learning that involves a **finely tuned orchestra of mental attitudes and capabilities** playing together in complicated rhythms... Creativity is not one thing. **It is not a unitary faculty that can be trained or cultivated by itself**

Guy Claxton 2003

Creativity in Creative Little Scientists

Purposive imaginative activity generating outcomes that are original and valuable in relation to the learner

Dispositions characteristic of creativity in learning, include: a sense of initiative, motivation, imagination, curiosity, ability to work together and thinking skills.

Some learnings from creative programmes

Can you support children to become creative in science?

What we were finding...



and s

Learning through the arts

- Increased motivation to pursue **personally directed learning** at home and with parents
- From learning facts - to **analysis , judgement , interpretation, looking at consequences**
- Redefinition of what is 'hard'
- from **barriers to challenge**

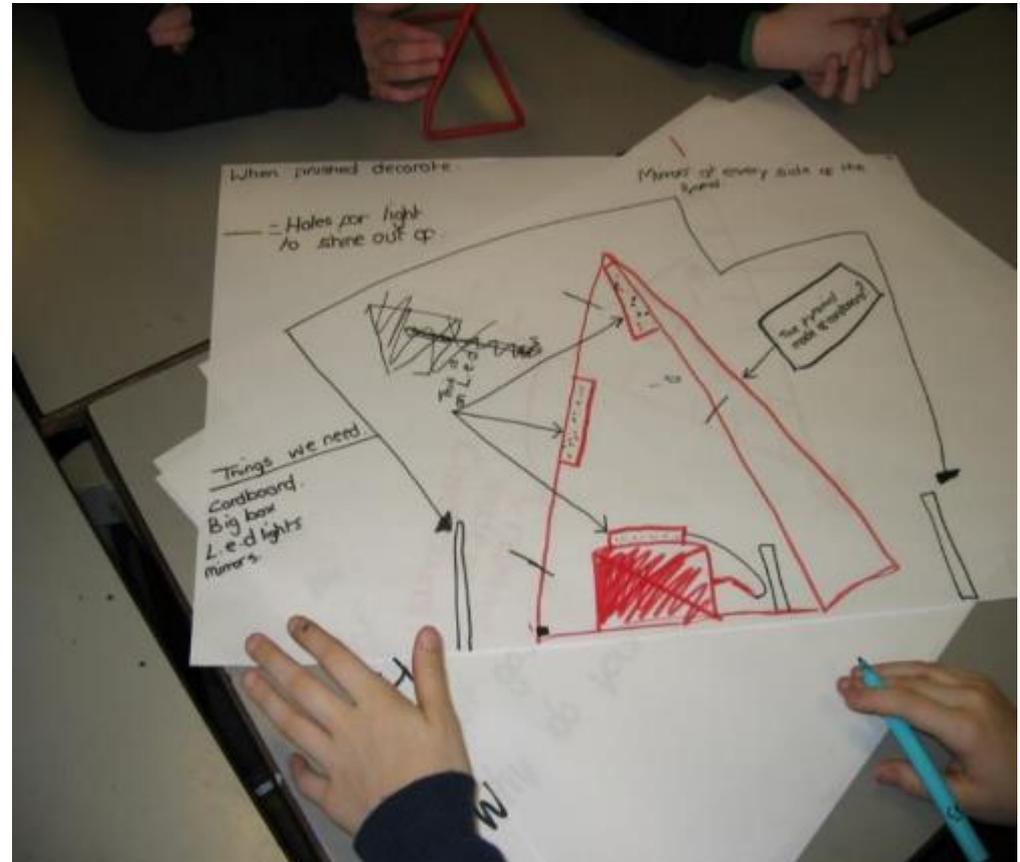


How Arts Integration supports students learning Karen deMoss and Terry Morris
www.capeweb.org/formal-research-findings

Drama and in-role work – impact on writing, reading and communication



Drawing and modelling
support learning of
scientific and
mathematical concepts



A woman with long, reddish-brown dreadlocks is focused on her work in a workshop. She is wearing a black long-sleeved shirt and is working on a large, abstract sculpture made of clear plastic tubing. The workshop is filled with various materials and tools, and other people can be seen in the background, suggesting a collaborative and creative environment. The text "Creative development for the adults" is overlaid on the image in white, sans-serif font.

Creative development for
the adults

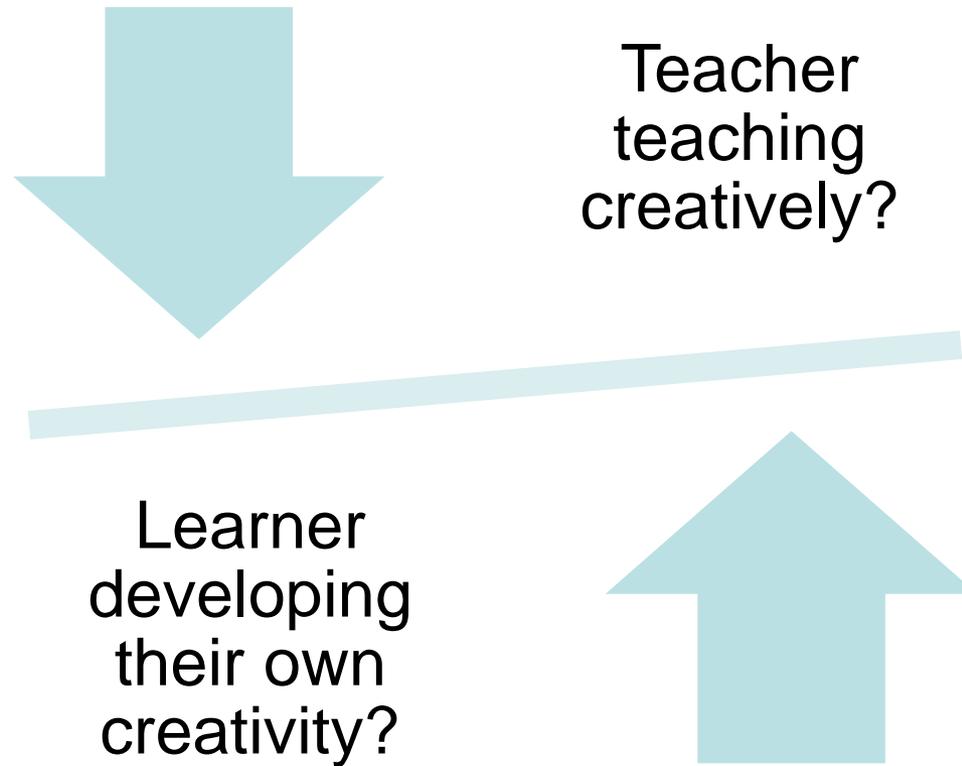
- Creative space ?
- Creative space – physical space
- Creative space – time
- Creative space – conceptual space

A vertical bar on the left side of the slide, composed of five horizontal segments in orange, green, blue, purple, and light green.

The throughline:

- Focus on children's creativity
- Teachers 'stand back'
- An end product

- Trust the process





How do you spot creativity?

- Questioning and challenging
- Making connections and seeing relationships
- Envisaging what might be
- Exploring ideas – keeping options open
- Reflecting critically on ideas, actions outcomes

A vertical bar on the left side of the slide, composed of five colored segments: orange, green, blue, purple, and light green.

But also

- Risk taking
- Resilience - not giving up when things get difficult
- And more – intuition, handling uncertainty, team work etc.

Two experiments:

- Investigating an alien planet
- Creating a science learning centre in the school

they
land
on an
alien
planet



back at the lab the
research begins



There's a lot of focused enquiry



a series of hypotheses
emerge

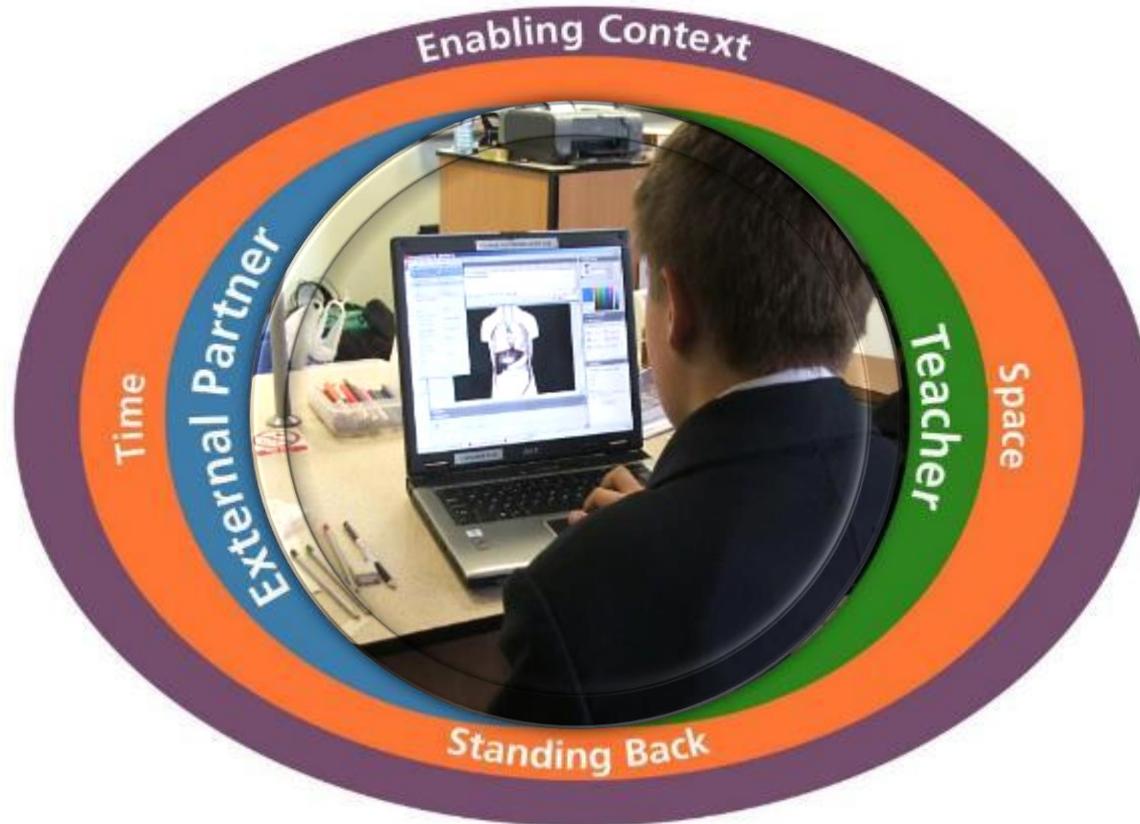


They must
have technol-
ogy!

This tape must
have been made
by the aliens and
been used for
fixing stuff.



Teacher modelling possibility thinking



Adapted from: Cremin, T., Craft, A., Burnard, P. (2006),
Pedagogy and Possibility in the Early Years.

Working wonders: starting from children's questions

- How hot is a star?
- What will I look like when I'm 16?
- Is the sun bigger than the earth?
- How big will my feet grow?

- How does gravity work?
- Why are bananas yellow?

- Lynne Bianchi 2013





Sticky questions

How important is it to be 'right'?

What's the balance between knowledge acquisition and creativity?

How can we assess progress in creativity?

Conditions for teaching and learning for creativity

Graphics from Cochrane, Craft and Creasy – Creativity Advice
2010



Constrainers

- Making demand on children without regard to their affect or mood
- Failure to acknowledge that creativity can be scary for teachers and children
- **The fear of right and wrong**
- Misbalancing whose agenda – pupil or adult – is more important
- Inappropriately picking tasks
- Modulating freedom and structure inappropriately
- Not acknowledging the need for practice and skills
- **Fear of curriculum and testing constraints**
- Popular culture and the conventions of its narratives
- Self limiting beliefs of teachers
- **Time**

The new primary curriculum (that never was...)

- Thinking creatively
- Making original connections and generating ideas
- Considering alternative solutions to problems
- Using imagination to explore possibilities and generate ideas
- Showing empathy, initiative and perseverance
- Working collaboratively and dealing positively with praise and constructive criticism



The Pedagogical Synergies between IBSE and Creative Approaches

Play and exploration

Motivation and affect

Dialogue and collaboration

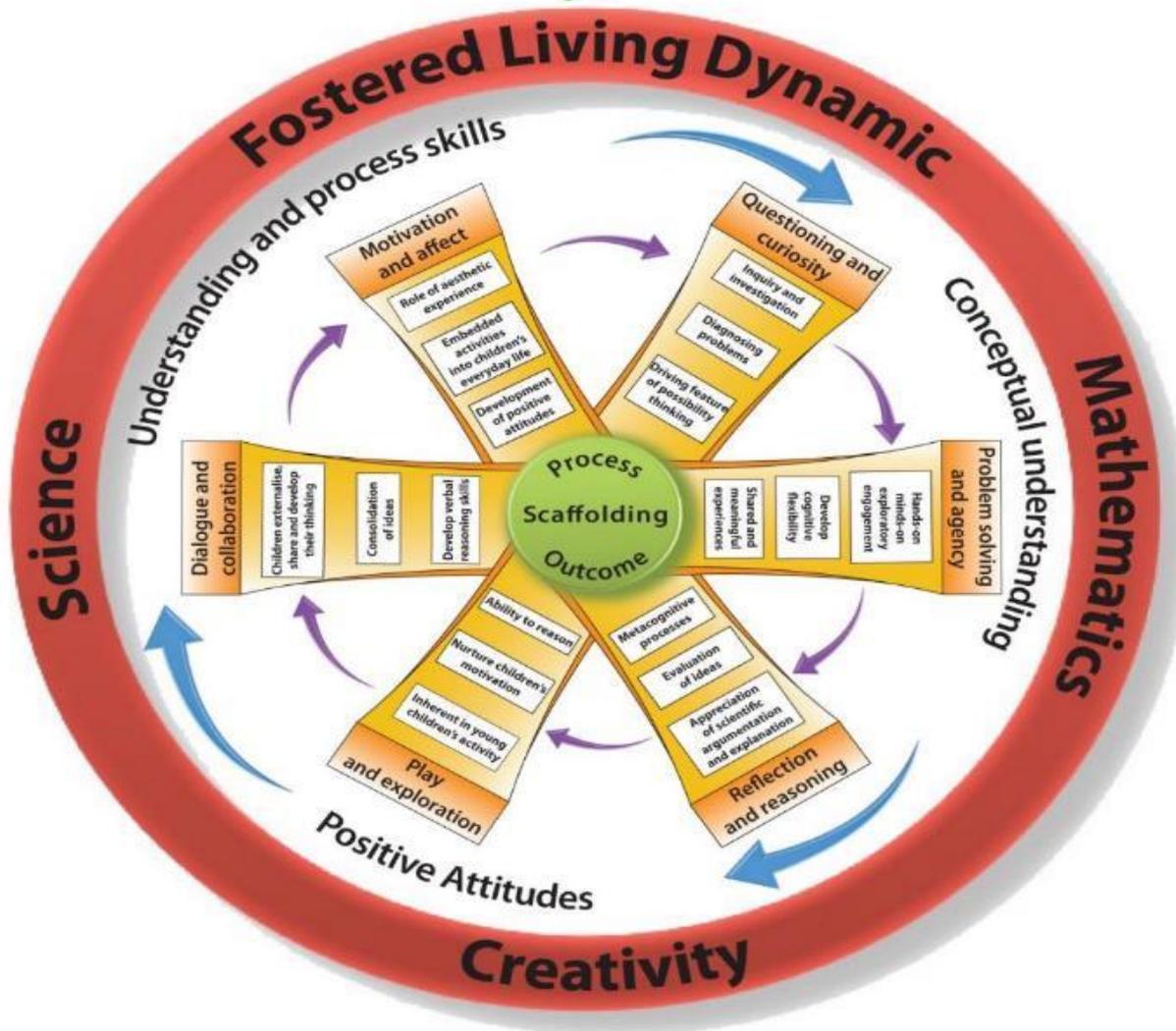
Problem solving and agency

Questioning and curiosity

Reflection and reasoning

Teacher scaffolding and involvement





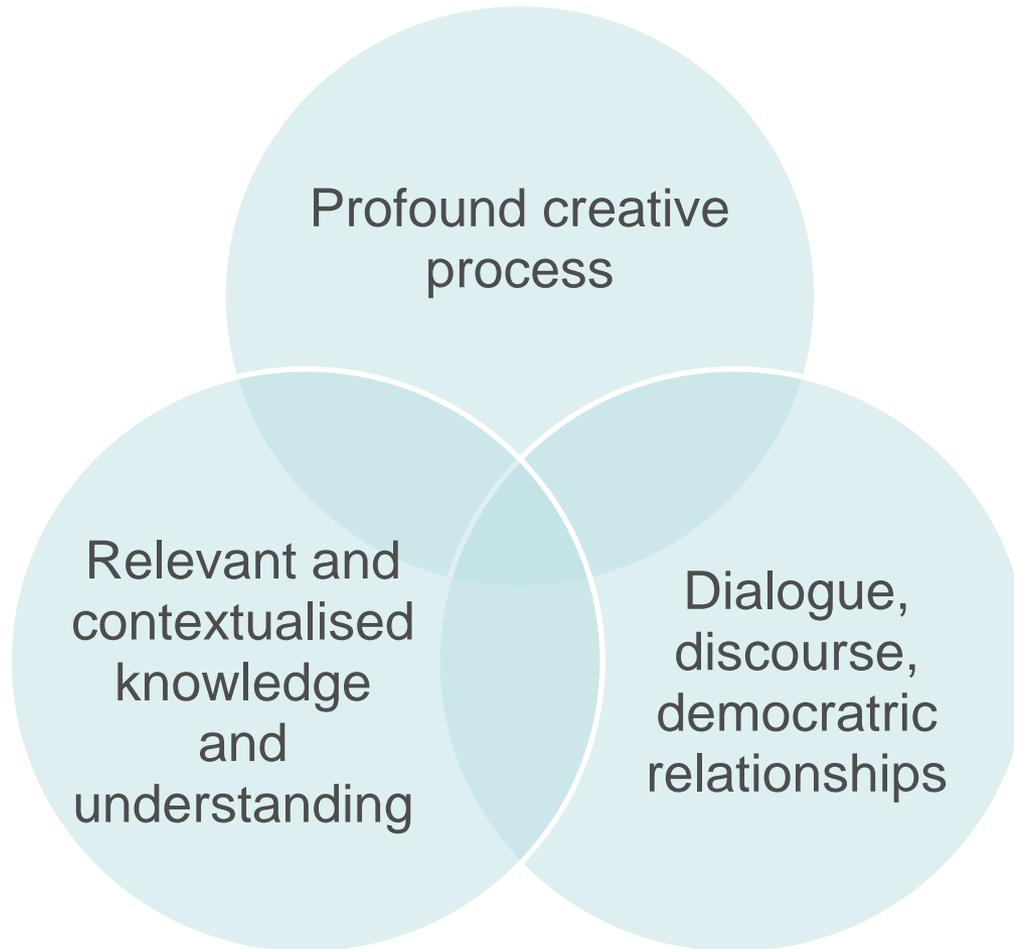
The Pedagogical Synergies

Adult pedagogies which influence pupil creativity



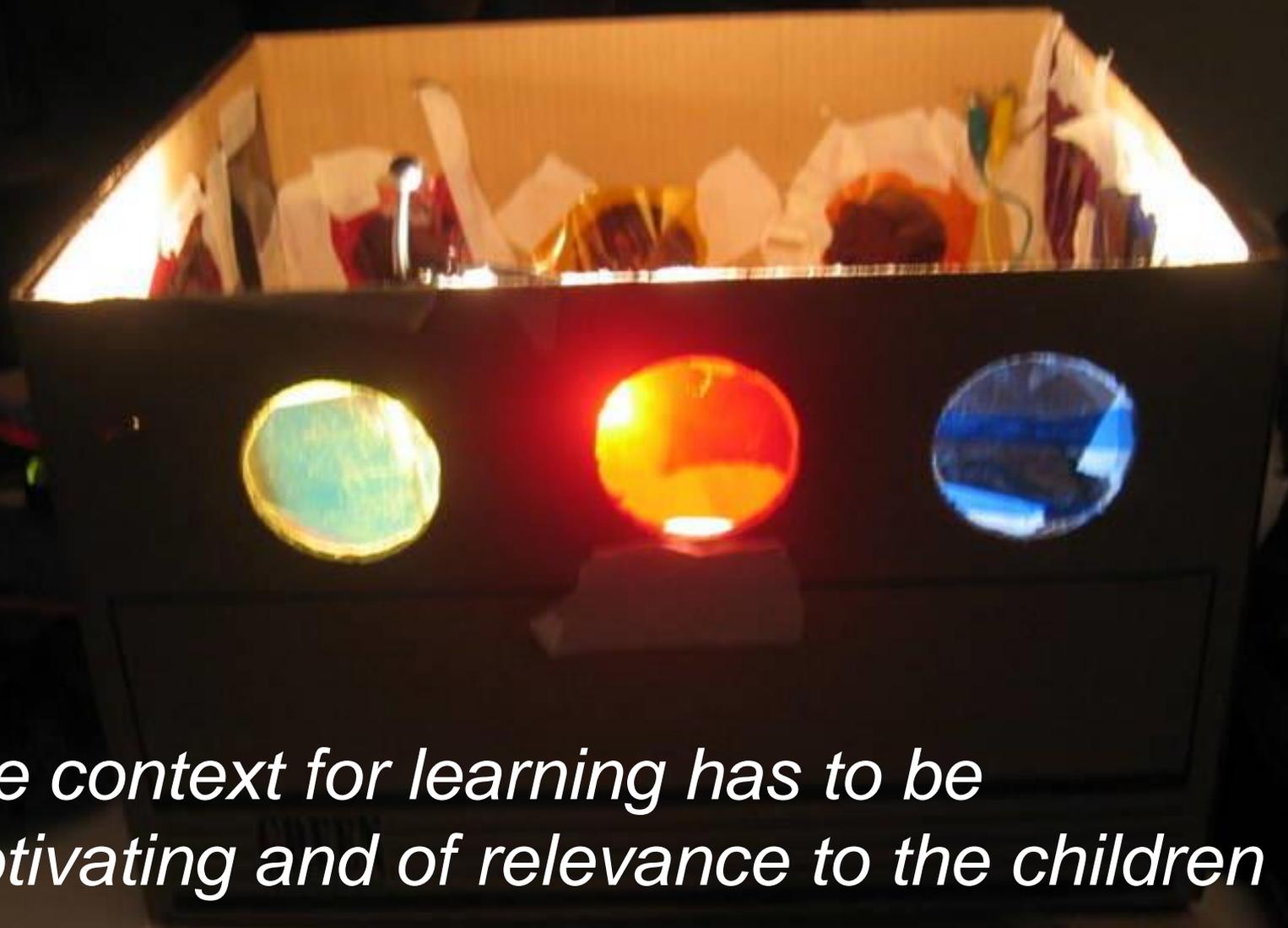
- **Personal relevance**
- **Choice and ownership**
- **Time for reflection**
- Purposeful outcomes
- Stimulating environment

- Modelling creative action
- Moving away from didactic teaching
- Where appropriate having high expectations
- Critical engagement by teachers
- Acknowledging the creative phases when encouraging creativity





You have to BE creative rather than learn about being creative



The context for learning has to be motivating and of relevance to the children



*give permission for creativity
and support experimentation*



*develop a shared understanding
of creativity*

*re-imagine use of space
and time within the school*





see pupils as partners in co-constructing learning

High standards



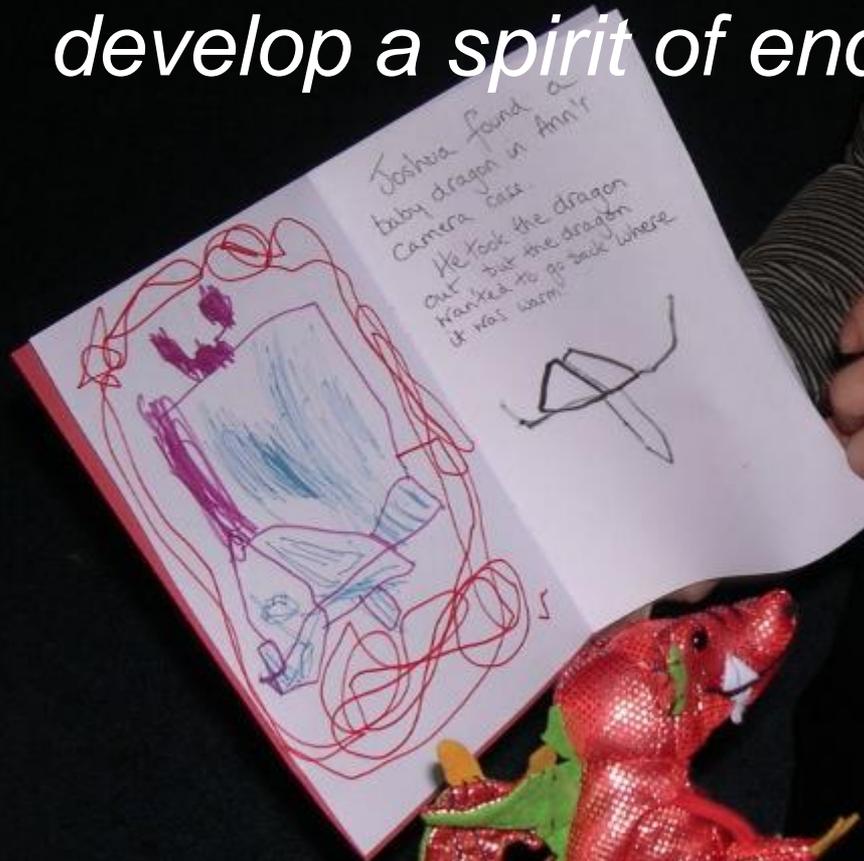
Assessment FOR learning

High standards

Enable imaginative use of technology



develop a spirit of enquiry and dialogue



Joshua found a
baby dragon in Ann's
Camera case.
He took the dragon
out but the dragon
wanted to go back where
it was warm.



·
Support calculated risk taking



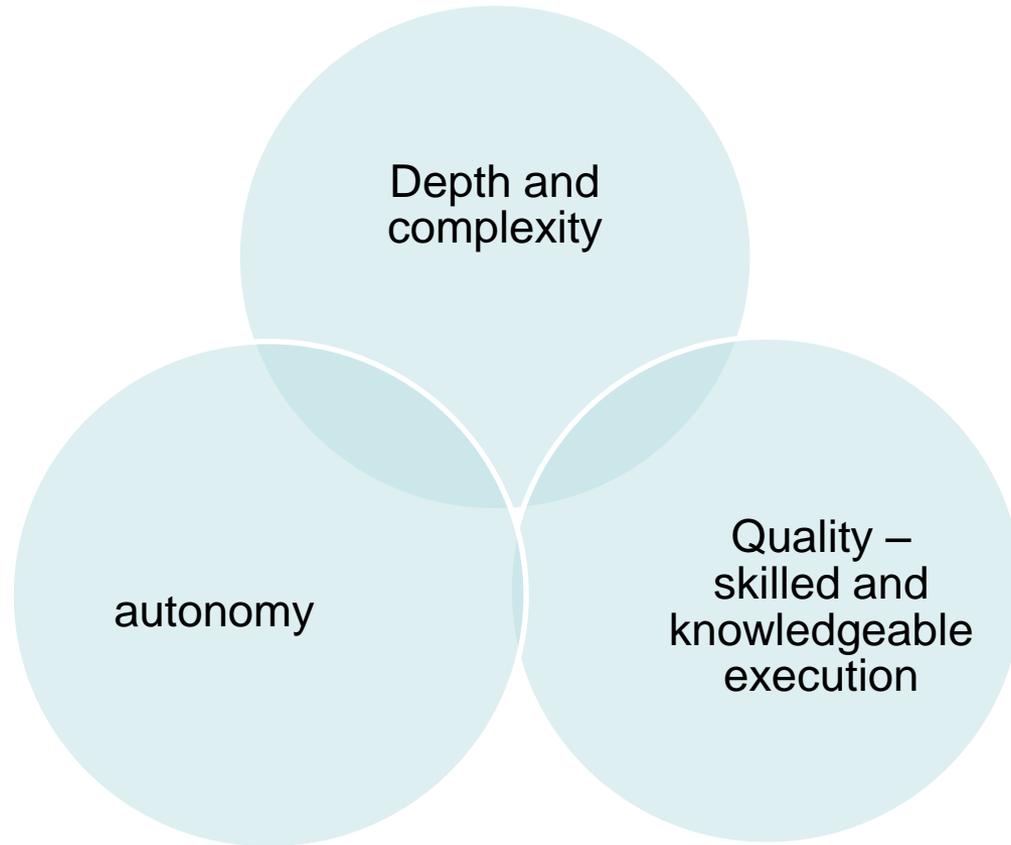
Make space for reflection

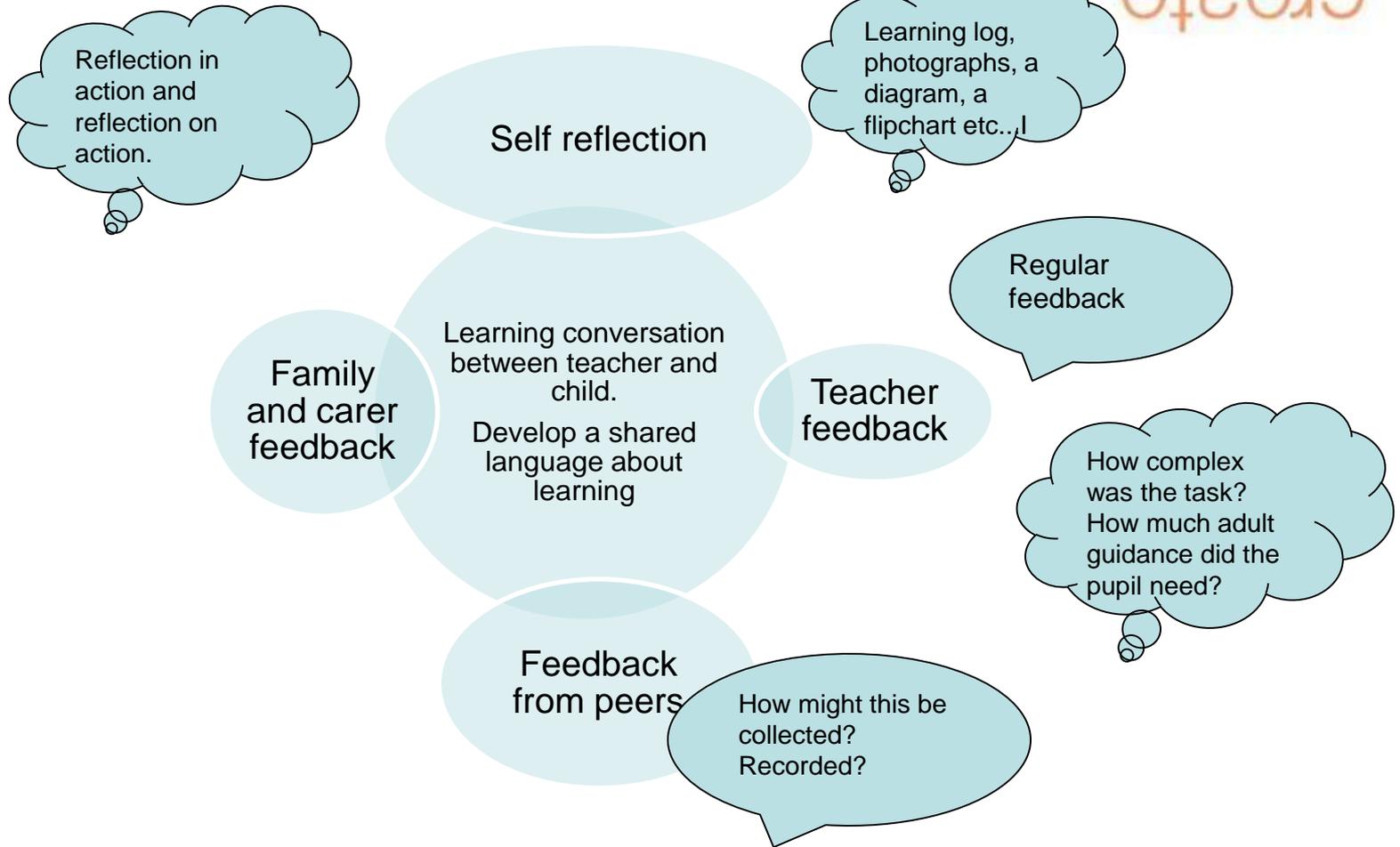
1. Reclaim assessment

- Do we focus on the learner?
- How do you recognise creativity?
- How do we validate the creative process as well as the product?



Progression in creativity





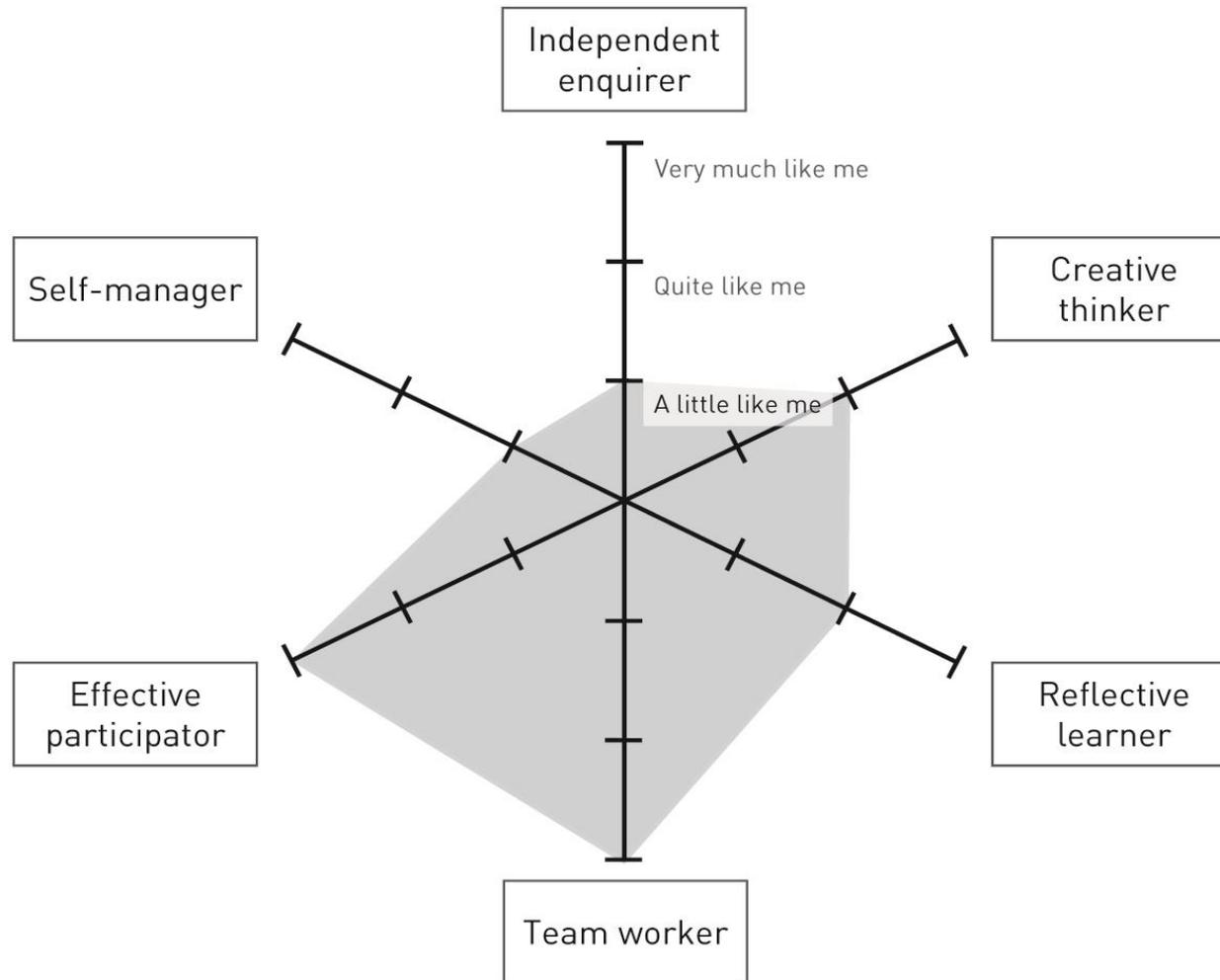


Appendix 2 The Creative Learning Observation Framework

Teacher/TA	Year	Date	Date
		Dec. 06	Feb 07
Name(s)		Elisha Y3	Elisha
Creative context		Cat sculpture in clay - Egyptian God - Hist.	Drama, mime & improvisation
1 Confidence, independence, enjoyment eg developing • pleasure and enjoyment • engagement and focus • empathy and emotional involvement • self-motivation		Confident approach to the sketch & clay sculpture. Assured. V. engaged & focused in this practical activity.	During drama teacher's demonstration, Elisha needs reminding to focus. However, once miming himself - very focused & shows he was watching & listening hard.
2 Collaboration and communication eg • works effectively in a team • contributes to discussion, makes suggestions • listens and responds to others • perseveres, overcomes problems • communicates and presents ideas		Independent. Commenting on his work - not to anyone in particular. Overcomes difficulties of standing. Easter car. All others sitting.	Full of ideas for top movements of the tiger. "It might eat some meat". First to ask questions in not-seating activity. Gave detailed, thoughtful answers in role.
3 Creativity eg • is imaginative and playful • generates ideas, questions and makes connections • risk-takes and experiments • expresses own creative ideas using a range of artistic elements		Uses own design for making his sculpture. Only when reminded. Playful, adventurous approach - adding, re-adding, changing. Inventive - adds whiskers. Not afraid to be different.	V. Confident at moving like a tiger - lots of facial expressions, growling & miming of eating, rolling in the sun. Makes connections w. T.V. documentary on tigers. Relates to other in improvisation. Invents own movements.
4 Strategies and skills eg • identifies issues and explores options • plans and develops a project • demonstrates a growing range of artistic/creative skills • uses appropriate subject specific skills with increasing control		More sophisticated drawing than sculpture. Bold in choices of design. Prepared to try different techniques & tools to perfect model.	After demonstration by drama teacher his movements are more controlled & purposeful. Tries out tiger voice in role.
5 Knowledge and understanding eg • awareness of different forms, styles, artistic and cultural traditions, creative techniques • uses subject specific knowledge and language with understanding		Very sure about the Egyptian style. Comment on authentic features. Uses smoothing, pressing & drawing in clay. Knows about the effects of drying.	Clearly understands need for expressive movements in mime. Keen to answer questions related to specific terms: voice projection, improvisation.
6 Reflection and evaluation eg • responds to and comments on own and others' work • responds to artistic/creative experiences • analyses and constructively criticises work • reviews and evaluates own progress		Comments on others' drawings. "It looks real - looks strong". "It's like the model by Maddie (art path)" "Clay can look very realistic".	All answers show his knowledge & understanding of tigers & drama. Mentions techniques for extending mime & his progress from last time. "now it's like real tigers... slower... I found it easier now! I know how a tiger moves."
7 Areas for further development		Very keen to repeat success - wanted to make a clay house. Build on his ability to concentrate in practical activities - plan more. More opportunities for talk & sharing ideas.	Needs opportunities & support to effectively collaborate w. others, plan a sequence with others.

You may need to refer to the NC PoS and ATs
© CLPE/CfBT July 2007





PLTS self-assessment tool for students – example 1 (Facer & Bell, 11, 2007)



This was when I was a bit worried that the others wouldn't like my model, but it worked out really well in the end.

My hovercraft didn't work so I had to try again. We tried to find out what had gone wrong. Barney helped me but in the end I worked it out myself

A person wearing a grey zip-up hoodie is shown in a dark environment, likely a tunnel. They are holding a flashlight that is turned on, creating a bright beam of light at the bottom of the frame. The person's face is partially obscured by a light blue thought bubble. The background is mostly black, with some faint light reflecting off surfaces.

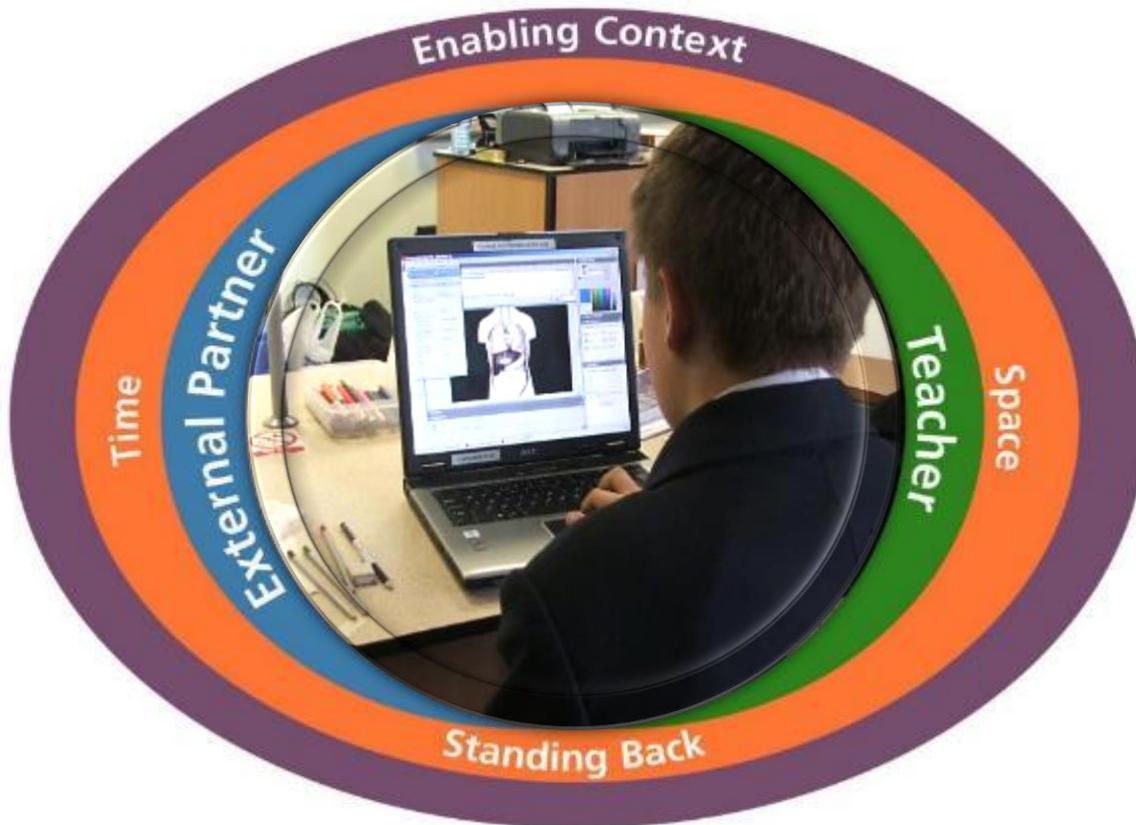
I felt great showing
the tunnel of light to
the Y2's. They really
liked it.

2. Invest in teacher's professional development

- Immersion in creative process
- Action research focused on creativity
 - Teaching creatively
 - Teaching for creativity
 - Creative learning

space-time-challenge-risk

- Immersion in a challenging and meaningful personal creative process
 - Experimenting
 - Risk taking
 - Reflecting
 - Applying
 - Refining
 - Sharing



3. Focus on enquiry as a process for professional learning

CARA - Creativity Action Research
Awards

The value of the good and rich question

The enquiry ?

Has to be a question

Has to be a rich question of interest to the partners

Has to be worth exploring and of value to the field – defined as fellow practitioners

Encouraged to make it manageable within available resources and time

ID	PROCESS	AFTER- IN Connections	COMMUNITY	Tools & Resources	STANDARDS	REFLECTION
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What the students drew, and what we noticed:

The *imagined* drawings consistently included more narrative, setting, and movement than the *observed* drawings





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Knowledge development or professional learning?

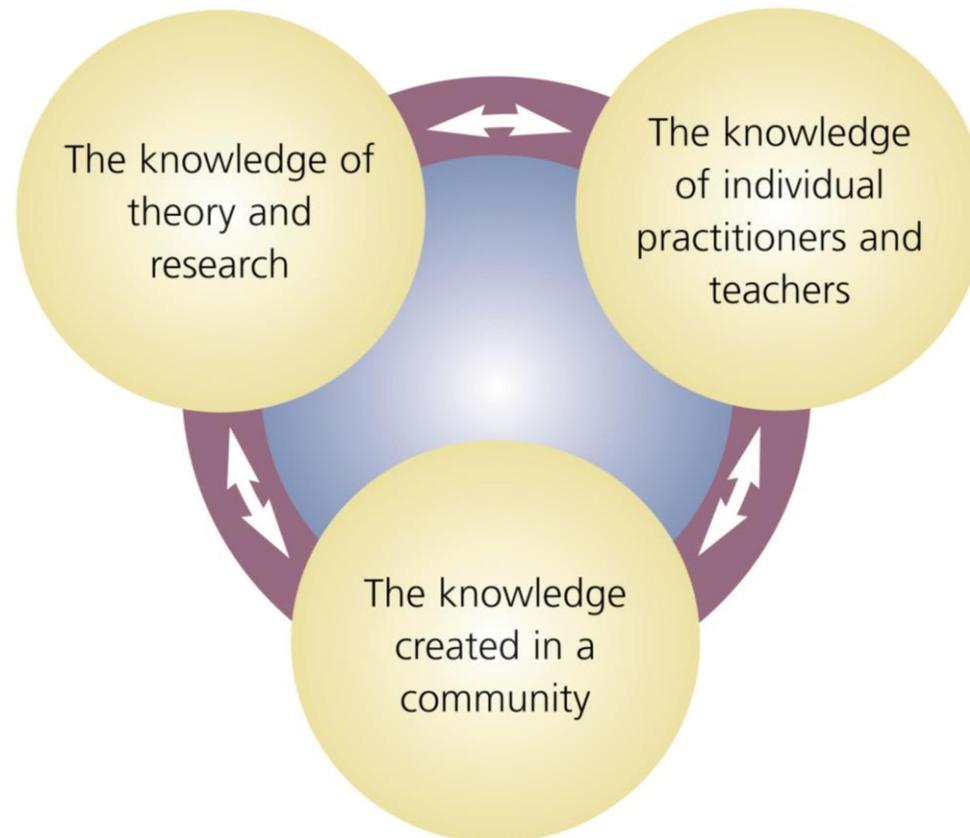
- The criteria for evaluating projects should include their impact on teachers' own professional development , on their teaching practice, on pupils, on parents and on their colleagues... Projects did indeed appear to have considerable impact on all of these factors **though only in a minority of cases was the evidence considered to be robust.**

*Best Practice Research Scholarships: an evaluation
Furlong,J and Salisbury,J 2005*

- The research was conducted with varying degrees of rigour. But whatever the challenges posed by the process, **its impact on the adults involved was consistently significant**

CARA 2 report CapeUK 2007

4. Develop and nurture communities of practice



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A final word on creativity

“It’s whether you can create something like, have you got a good imagination – can you solve a problem creatively? It’s like using your imagination to come up with, like, a solution.”

 www.capeuk.org
Twitter @capeuk

Acknowledgements:

- Ruth Churchill Dower – Earlyarts – www.earlyarts.co.uk
- Teaching Resources for Creative and Cultural Education: www.nfer.ac.uk/CulturalEducationResources
- Lynne Bianchi – Head of Science Education Research and Innovation Hub, University of Manchester
- John Bishop - PLACEs project (Manchester)





I will not ever NEVER eat a tomato

NUMBERS

TALES

CHILDREN OF BRITAIN JUST LIKE ME

VEGETABLES

STARS