



Dr Sally Montgomery  
Experience matters, ok?!



Arriving in the middle of the night  
Tigger was asked to stay for  
breakfast, and was asked by Pooh  
whether he liked honey. ***'Tiggers  
like everything!'***

but after discovering that he didn't,  
he tried the food of all the animals in  
the hundred acre wood.....

Finally ..'he's taken my medicine!'  
sang Roo happily, thinking it was a  
tremendous joke. Then Tigger  
looked at the ceiling and closed his  
eyes, and his tongue went round  
and round his chops, in case he had  
left any outside, and a peaceful  
smile came over his face as he said  
'so that's what Tiggers like!'

Experience is a child of Thought, and  
Thought is the child of Action.

Vivian Grey 1826



social

physical

personal

Falk and Dierking

what are your  
earliest childhood  
memories.....

what is the first  
thing you remember  
learning?



Attitudes to, and  
experiences of  
learning, start at a  
very very early  
age.



How do we know what we are good at, what interests us, or the kind of person we are, unless we have the opportunities to try things out through educational, working, cultural and social experiences.



- 'people best remember things that they already had experience of'
- children remembered more from school trips if they had been before
- memory related to curriculum issues, or areas where they had direct experience
- memory often associated with strong emotional responses



Memory often involved active learning, personal strategies. sharing these with others made it more likely that their knowledge was transferred to subsequent problems or comparing new experiences to existing concepts



Learning is an active process

We learn to learn as we learn.

Crucial action is in the mind...creating meaning

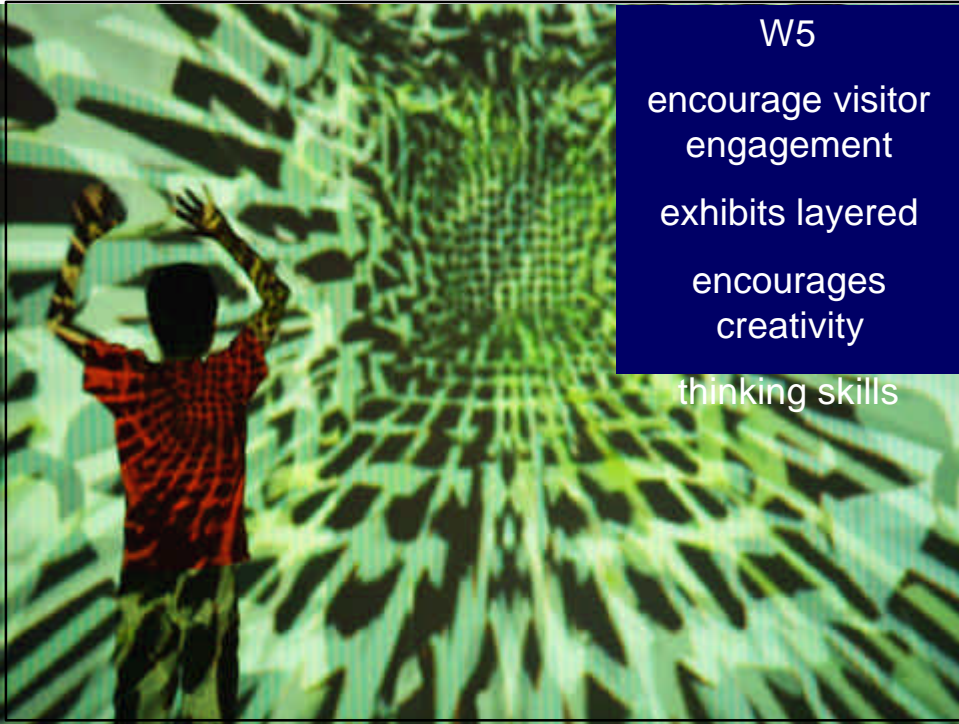
Learning involves language, the language we use influences learning

Learning is a social activity

Learning is contextual

One needs knowledge to learn..path into the subject for the learner based on previous





W5

encourage visitor  
engagement

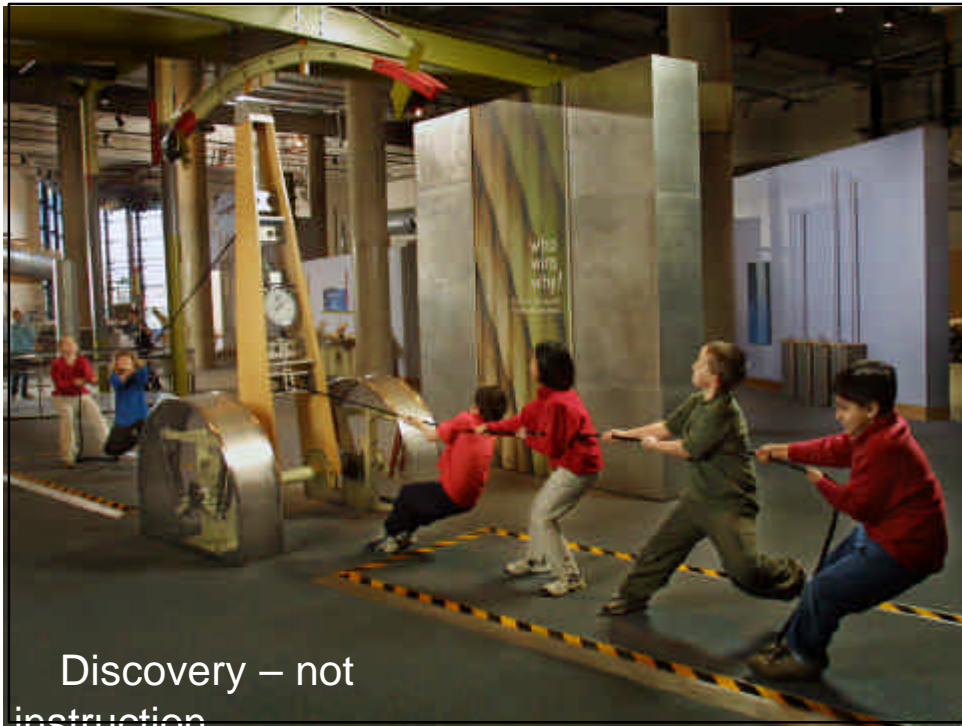
exhibits layered

encourages  
creativity

thinking skills

## Science as a process - not facts, thinking - not instruction

- Sequencing
- Analysing and sorting
- Drawing conclusions and making predictions
- Determining bias, the reliability of evidence
- Distinguishing fact from fiction/opinion
- Generating new ideas
- Relating causes and effects
- Problem-solving and testing solutions
- Planning
- Making decisions, weighing pros and cons



Discovery – not  
instruction

Howard Gardner  
multiple intelligences  
linguistic,  
logical/mathematical,  
musical, artistic, spatial,  
bodily/kinaesthetic,  
inter/intrapersonal

Providing the variety..





Having fun  
provides  
motivation to  
learn.

understanding  
what you can't see  
is not easy!

trying to make  
things relevant and  
help  
understanding, and  
develop a visual  
dictionary.



shows and workshops  
reinforce scientific  
principles and  
relationships to  
everyday life



encouraging debate and the  
understanding that topical issues  
of are complex

developing  
curiosity,  
imagination and  
exploration –  
from why?  
to what if?



thank you