



*In Darwin's Footsteps
January 27, 2009*

KING'S
College
LONDON

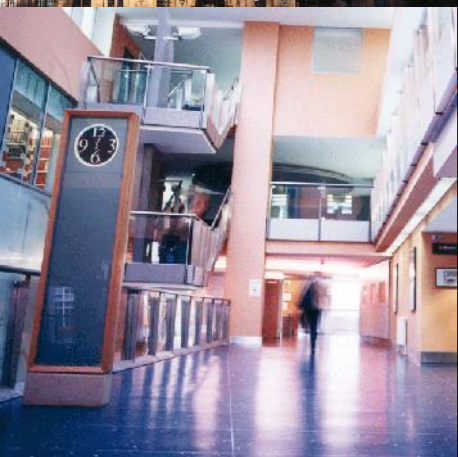
University of London



*Do diversity education out of the
classroom - does it work?*



*Justin Dillon
King's College London*



*Audiomontage
Charles-Henri Lyraud*





School

Learning is individualized and independent of other students

Abstract / pure thought

Verbal + symbol manipulation

Generalized learning

Out-of-school

Activities are socially shared and based on co-operation and ability of group performance

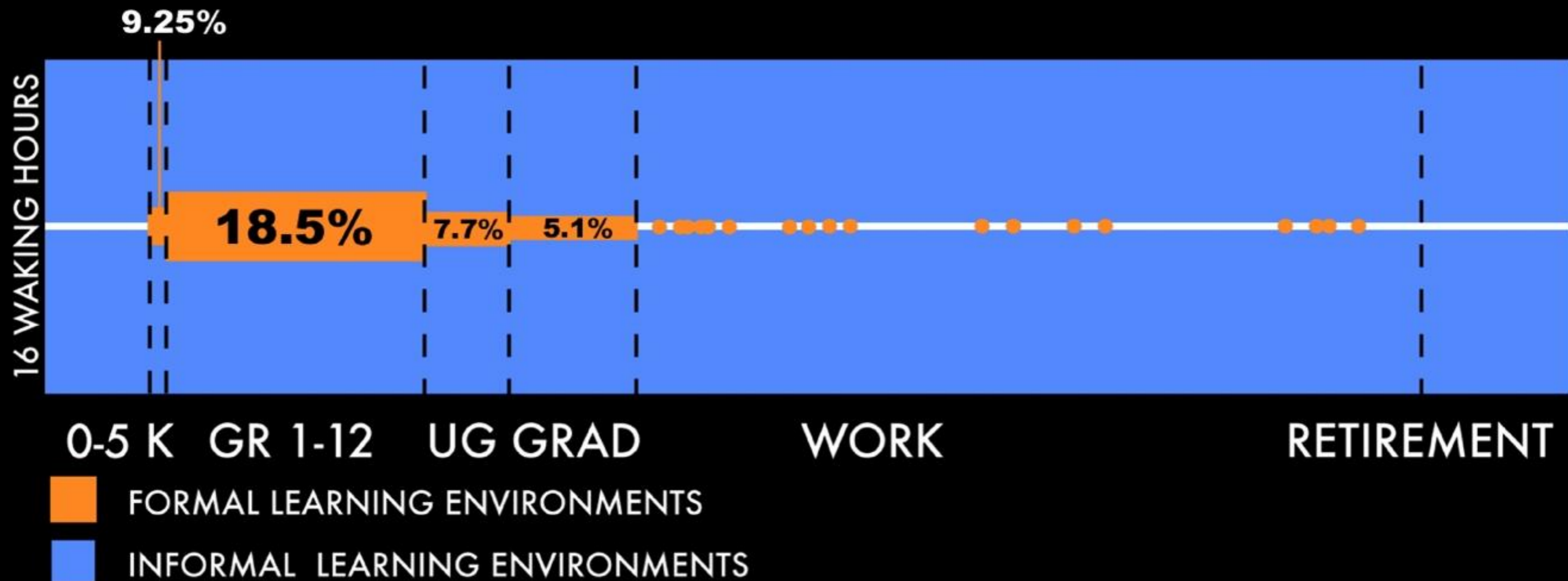
Manipulation of concrete objects

Contextualized reasoning

Subject-specific learning



LIFELONG AND LIFEWIDE LEARNING















About learning

Report of
the Learning Working Group

DEMOS
www.demos.co.uk

Whilst it may be true that some learners have a dominant learning style, a good education does not limit them to that style or type, but ensures that students have opportunities to strengthen the other learning styles.

Learning Working Group, DEMOS, 2005, 11

...the popular notions of ‘right brain’ and ‘left brain’ learning have no basis in neuroscience. Both hemispheres of the brain are involved in every cognitive task studied so far, including language and spatial analysis.

Learning Working Group, DEMOS, 2005, 13



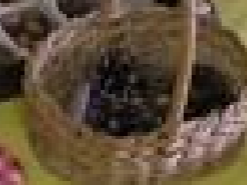








い3んなはっは° い3んなたいすき







Doritos
MILD FLAVOR
& FLAVORED

FROSTIES
Kellogg's
FROSTIES

29P
Best-in
PEELED PLUM TOMATOES
In tomato juice

RICE KRISPIES
RICE KRISPIES

THE
EDIBLE SCHOOLYARD





























Research Team

- ◆ Mark Rickinson, Marian Morris, Pauline Benefield, Sue Stoddart, NFER
- ◆ Justin Dillon, Kelly Teamey, Mee Young Choi, King's College London

Funders

- ◆ FSC, DfES, English Outdoor Council, Groundwork, RSPB, WWT

**Fieldwork
and
Field Studies**

**School Grounds
and
Community
Projects**

**Outdoor Learning
Research
1993-2003**

**Visits to Nature
Centres, Parks,
Farms and
Gardens**

**Outdoor/
Adventure
Education**

Common Beliefs

- ◆ New environments are particularly rich learning contexts for young people
- ◆ Young people enjoy learning beyond the classroom
- ◆ The impact of outdoor education programmes decreases with time

Novel experiences can put people off

*‘Novel environments place learning demands on children which have not been adequately considered by the professional educator’
(Martin et al., 1981)*

‘Fearfulness of extremely novel environments was prominent’ (Bixler et al., 1994, p. 30)

Fears and Phobias!



Snakes



Poison Ivy



Dirt/Mud



“Killers in the woods”



Getting Lost

Young people can have concerns about learning beyond the classroom

‘Students with high disgust sensitivity expressed lower preference for activities requiring contact with organic materials’ (Bixler and Floyd, 1999, p. 9)

‘For some students, the perceived boredom of previous fieldtrips and the monotony of the recording tasks were negative experiences’ (Lai, 1999, p. 252)

The impact of outdoor education programmes increases with time

Average effect size post-programme 0.34

Average effect size after six months 0.51

'It seems that adventure programs have a major effect on the lives of participants, and this impact is lasting' (Hattie et al, 1997, p. 70)

Impacts seem to be greater where there is:

- ◆ Choice of activities/tasks
- ◆ Preparatory and follow-up work
- ◆ Longer engagement

Impacts seem to be greater where there is:

- ◆ Control
- ◆ Choice
- ◆ Challenge
- ◆ Collaboration

Paris, D G (1998). Situated motivation and informal learning, Journal of Museum Education, 22 (2/3), pp. 22-26.

Students' engagement can be limited by too much structured activity

Most Liked		Least Liked	
✓	Being able to choose what to do	✗	Measuring water quality
✓	Learning together with friends	✗	Listening to or reading stories about the environment
✓	Being able to touch plants, animals and birds	✗	Using activity sheets to help learn about the environment

(Ballantyne and Packer, 2002, p. 222)

The learning outcomes of fieldwork can be short-lived
without preparation and follow-up work

‘Those who had done pre-visit activities at school were looking forward to their visit more than those who had not ($p < 0.001$)’

(Ballantyne and Packer, 2002, p.221)

‘The attitudes of the follow-up group revert to pre-course levels of low concern after arriving back at school’

(Uzzell, 1999, p. 406)

There is an increasingly strong case for outdoor learning

SEER (2000); Boston Education Development Center (2000)

Hattie *et al.*,(1997); Cason and Gillis (1994)

Nundy (2001); Lai (1999)

Ballantyne and Packer (2002); Mittelstaedt *et al.*,(1999)

Impacts on student learning & motivation

Maller (2005): Urban Melbourne primary schools
(n=500)

'hands-on contact with nature in primary school, regardless of the type, is an important means of connecting children with nature and can play a significant role in cultivating a positive mental health and wellbeing' (p.16)

Pace and Tesi (2004):
US adults (n=8) Memories

'field trips that required hands-on activities seem to have a positive impact on student ability to recall information learned on the educational excursion, and students tend to enjoy this type of experience when compared to field trips that didn't encompass hands-on activities' (p. 30)

Beames (2005): British youth (n=14)

10-week expedition; Ghana; Raleigh International

participants *'developed a certain mental resilience, became more willing to undertake challenges, and gained a greater understanding of themselves'* (p. 14)

Amos and Reiss (2006): Impact of residential field courses on 11-14-year-old pupils (n=428) from 10 London schools

'pupils surpassed their own expectations of achievement during the courses, and both pupils and teachers felt that the general levels of trust in others and the self-confidence shown by the pupils on the courses were higher than in school subjects' (p. 37)

O'Donnell *et al.* (2006) (except KS2)

visits by pupils in mainstream schools '*to field studies centres, environmental centres and outdoor pursuit or adventure centres were relatively rare*'
(p. i)

At Key Stages 3 & 4, geography was the subject most likely to organize fieldwork visits

The effectiveness of outdoor learning programmes that seek to build progression from local environments to more distant learning contexts

Few studies have examined progression in outdoor learning from local environments to more distant learning contexts.

Young people's fears and concerns

Fabrizio and Neill (2005) noted that students' failure to take account of the different culture of outdoor activities could lead to symptoms of culture shock, including homesickness, negative personal behaviour and interpersonal conflict.

*Teachers' and outdoor educators' conceptions
of 'the outdoor classroom'*

O'Donnell et al. (2006):

'teacher confidence appeared to be one of the key factors underpinning the extent of provision that was made available to pupils in schools' (p. ii)

Teachers' main concerns were about 'health and safety, risk management and costs' (p. ii)

The cost-effectiveness of different kinds of outdoor learning

Ritchie and Coughlan (2004): Australia
National survey of schools (n=807)

while the major motives for school excursions were educational, they were closely followed by the availability of cost-effective destinations

Further work needed to reassure decision makers that LOTC is value for money

How do headteachers' identify the short and long term costs and benefits of learning outside the classroom?

Further work needed to reassure decision makers that LOTC is value for money

What are the links between school visits, student motivation, and student attainment?

Areas of work that practitioners, working with colleagues in HE, might undertake to improve practice

A mechanism for the systematic dissemination of research findings might be useful to practitioners given that their access to the research literature is limited by issues of cost, time and readability

Areas of work that practitioners, working with colleagues in HE, might undertake to improve practice

The design and evaluation of more interdisciplinary school visits might provide opportunities for more cost-effective visits, both day-long and residential.

Whittington (2006): participation in an extensive all- female wilderness programme challenged conventional notions of femininity for adolescent girls.

Results revealed that the girls challenged conventional notions of femininity in diverse ways. This included: 1) perseverance, strength, and determination; 2) challenging assumptions of girls' abilities; 3) feelings of accomplishment and pride; 4) questioning ideal images of beauty; 5) increased ability to speak out and leadership skills; and 6) building significant relationships with other girls.



KING'S
College
LONDON

University of London

*Do diversity education out of
the classroom - does it work?*

*Justin Dillon
King's College London*

justin.dillon@kcl.ac.uk