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## Where do children walk (and what do they do when they get there)?

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# The research

Children's

Activities

Perceptions

And

Behaviour in the

Local

Environment

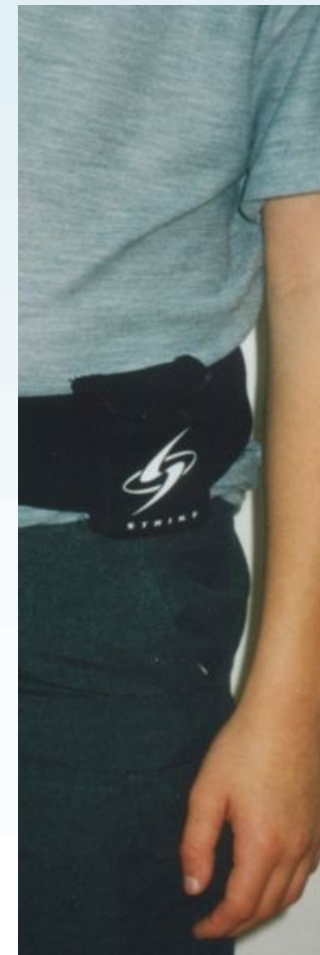
# CAPABLE

- Funded by EPSRC for 29 months from August 2004
- Joint project between CTS, CASA, Bartlett School and Psychology Department at UCL
- Approach:
  - Develop research tools to investigate children's spatial behaviour, perceptions and relationship networks, and parental attitudes
  - Analyse how children use open spaces
  - Develop new models of children's outdoor movement patterns

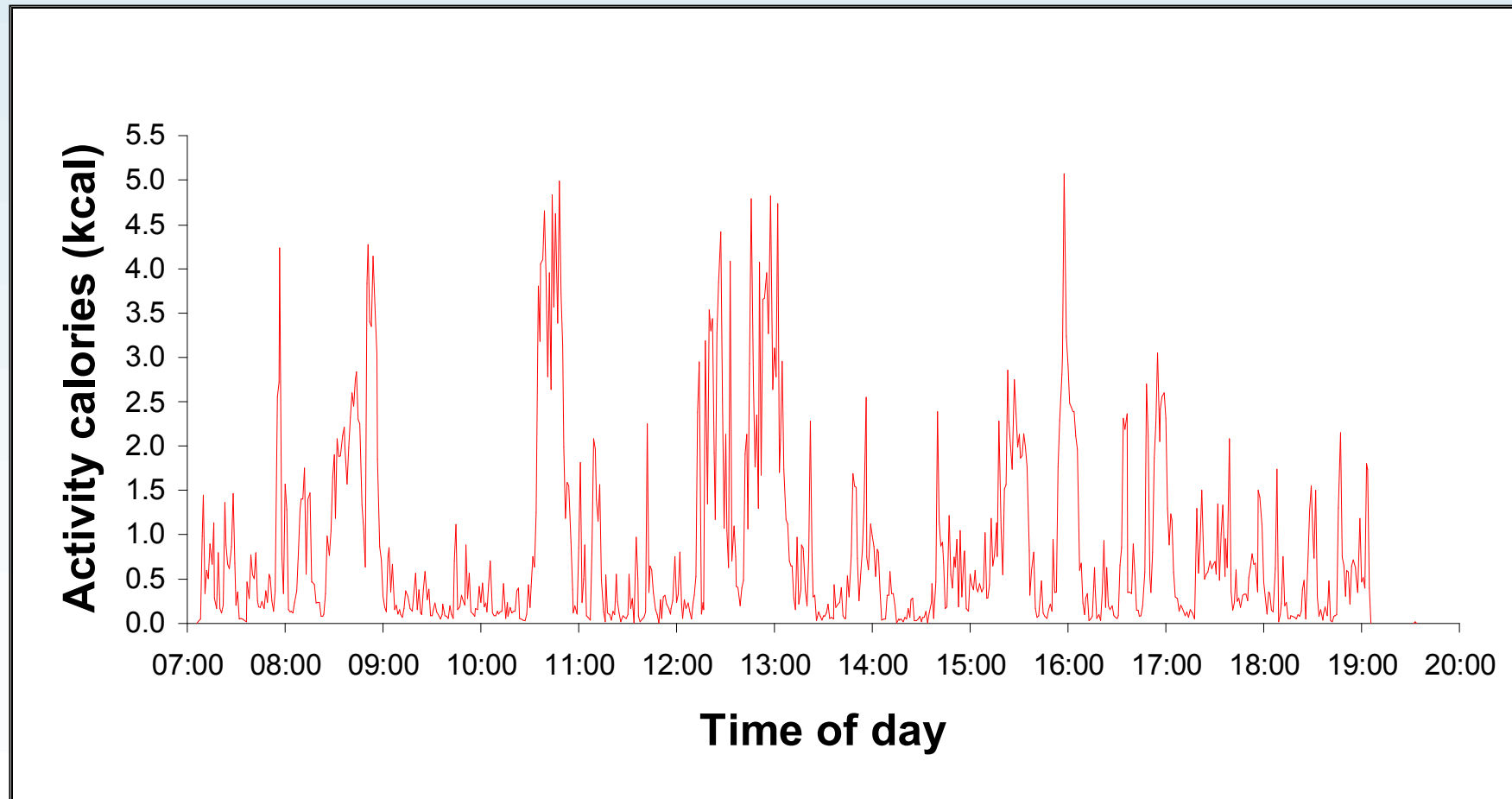
## The research tools

- Monitoring children's travel and activity patterns:
  - Motion sensors
  - Diaries
  - GPS monitors
- Questionnaires surveys of children and their parents, carried out through schools
- Interviews with parents and with children, including mapping exercises
- Children's drawing exercises

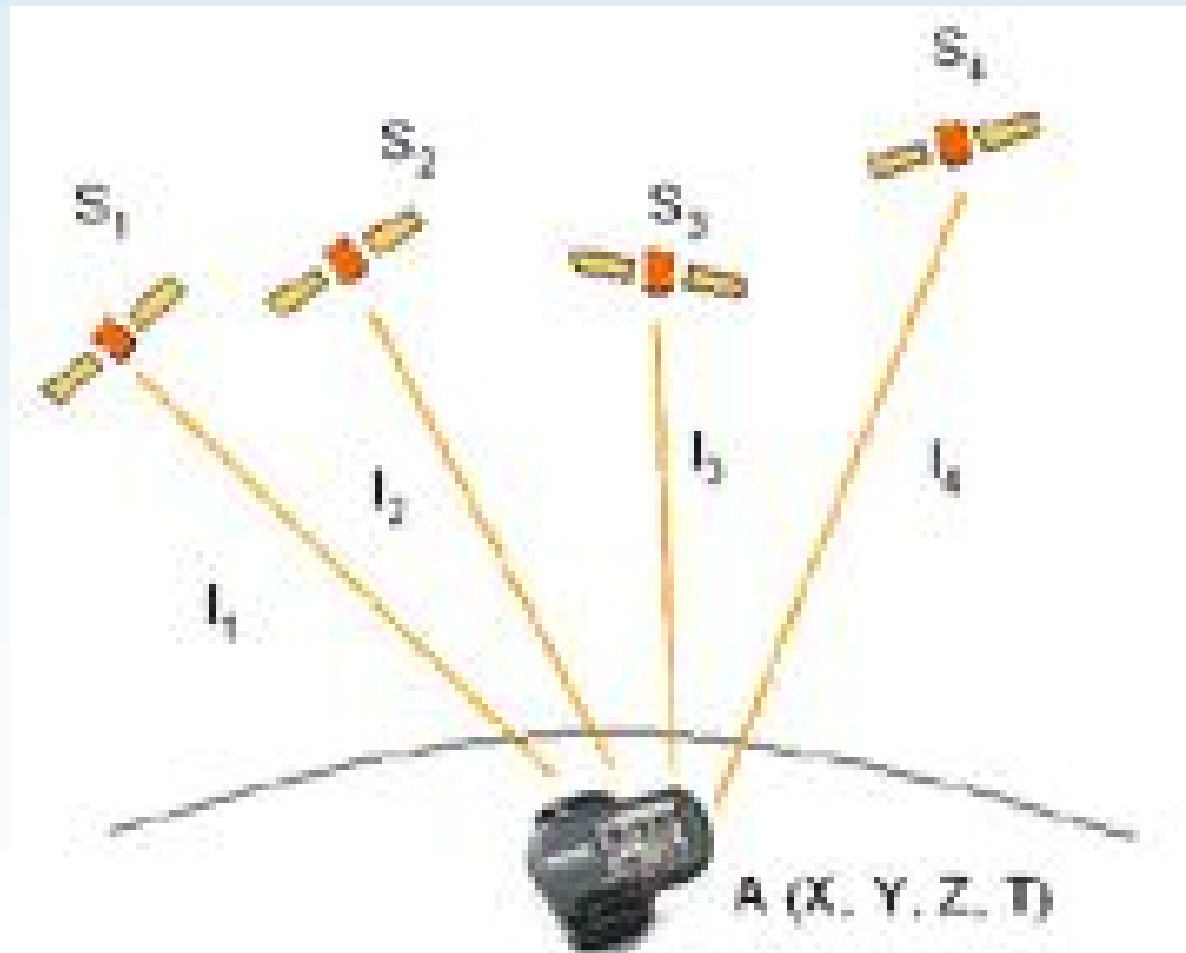
# The RT3 motion sensor



# An example output from an RT3



# The GPS equipment



# Wearing the GPS equipment





# A child's travel and activity diary

Location		What did you do there?
Morning	I began the day at Home <input type="checkbox"/> Somewhere else <input type="checkbox"/> Please say where	I woke up at [ ] : [ ] I put my sensors on at [ ] : [ ] I left at [ ] : [ ]
	Then I went to [ ]	I got there at [ ] : [ ] I travelled by [ ] I travelled: <ul style="list-style-type: none"> <li>• by myself <input type="checkbox"/></li> <li>• with an adult <input type="checkbox"/></li> <li>• with other children <input type="checkbox"/></li> </ul> I left at [ ] : [ ]
	Then I went to [ ]	I got there at [ ] : [ ] I travelled by [ ] I travelled: <ul style="list-style-type: none"> <li>• by myself <input type="checkbox"/></li> <li>• with an adult <input type="checkbox"/></li> <li>• with other children <input type="checkbox"/></li> </ul> I left at [ ] : [ ]

# The study area - Cheshunt, Herts

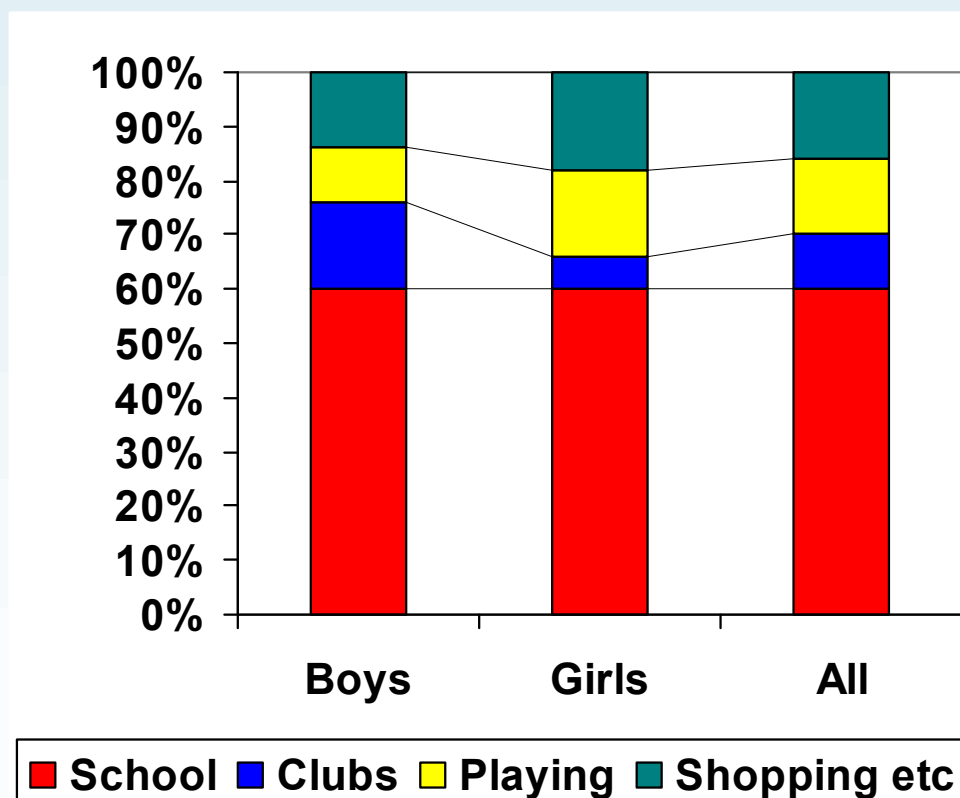


## The children in the sample

	Boys	Girls	Total
Year 4 (aged 8-9)	25	32	57
Year 5 (aged 9-10)	33	36	69
Year 6 (aged 10-11)	16	20	36
Total	74	88	162

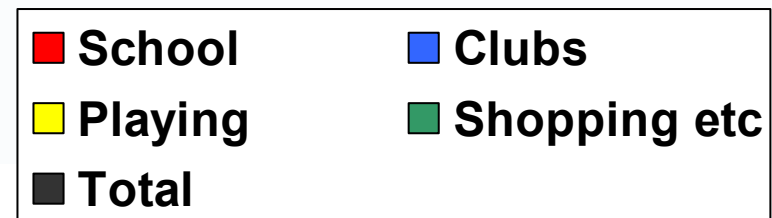
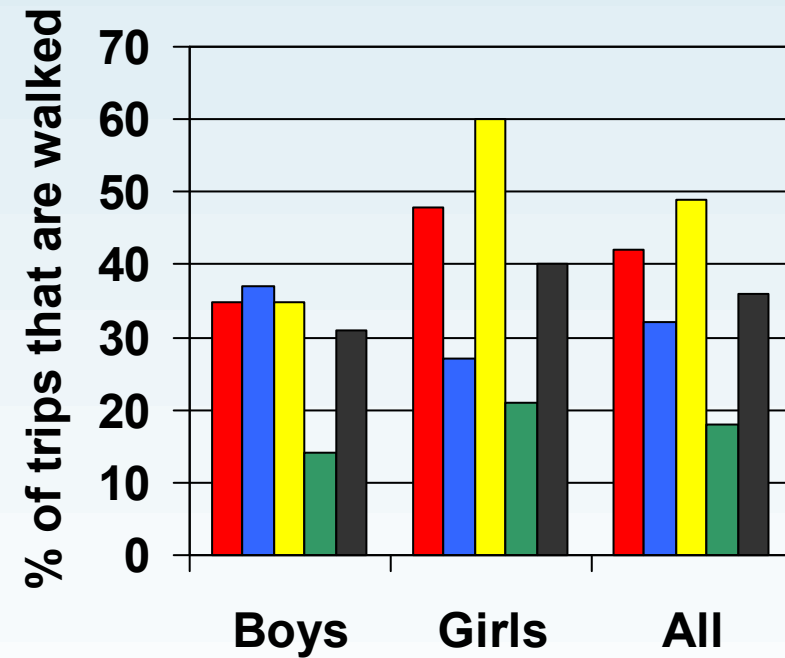
## The events that children walk to (%)

- School is the main event that children walk to.
- Shopping etc is the next most popular, especially for girls.
- Boys tend to walk to after-school clubs.



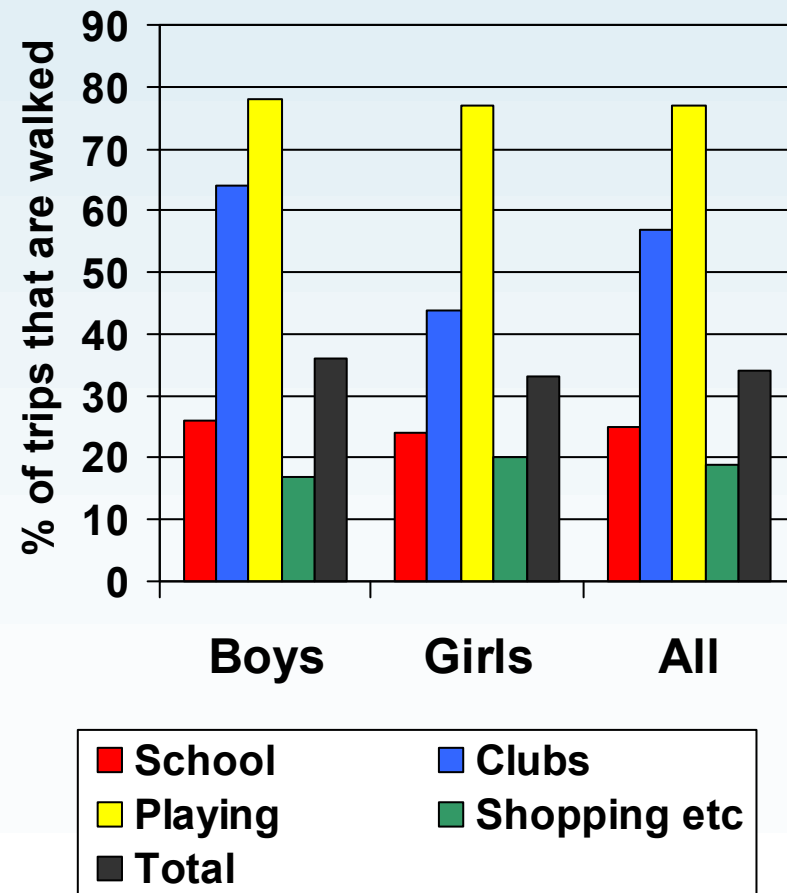
# Percentage of trips to events that were walked

- 36% of the children's trips were walked.
- Girls walked to more events than boys.



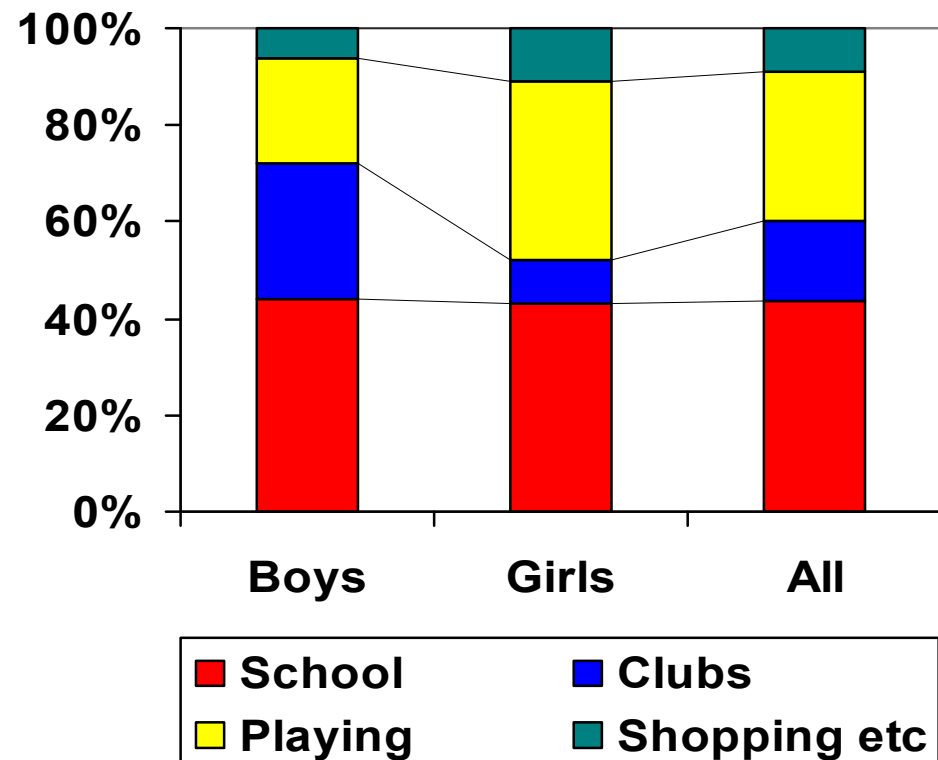
## Percentage of walked trips to events that were not accompanied by an adult

- About one third of the walked trips are made without an adult.
- More boys who walk are allowed to go unaccompanied by an adult than girls.
- Going to play is the event that the greatest proportion of children walk to without an adult



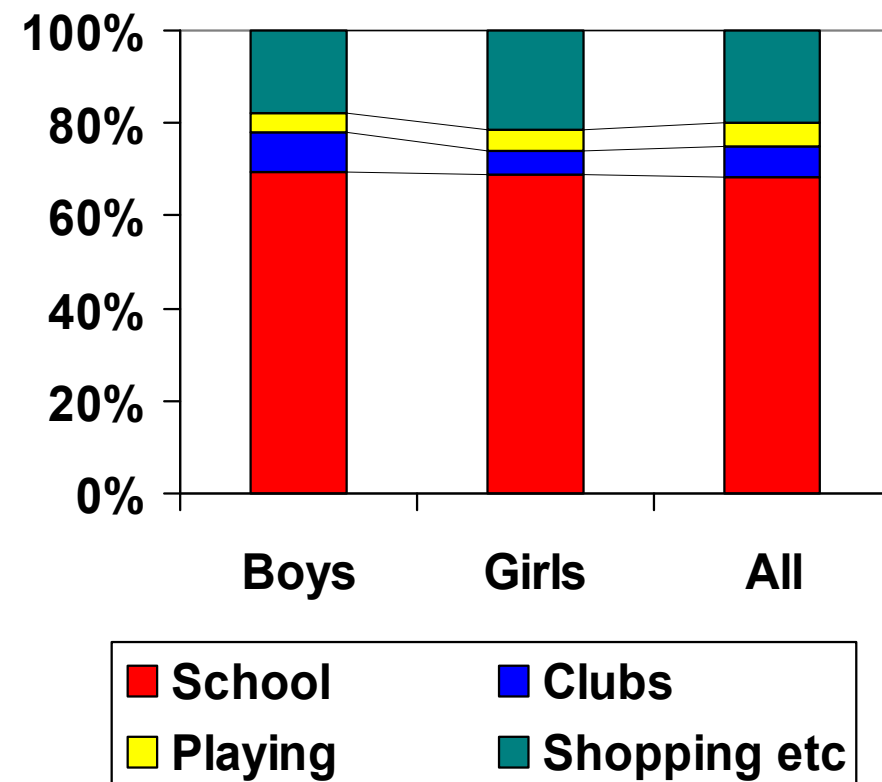
## The distribution of events that children walk to without an adult (%)

- School is the main type of walking trip that children make without an adult.
- Playing comes next, in total and for girls.
- Boys also walk to after- school clubs without an adult.



## The distribution of events that children walk to with an adult (%)

- School dominates the type of walking trip that children do with an adult.
- Shopping etc trips comes second, because many of these trips are made for the benefit of adults.

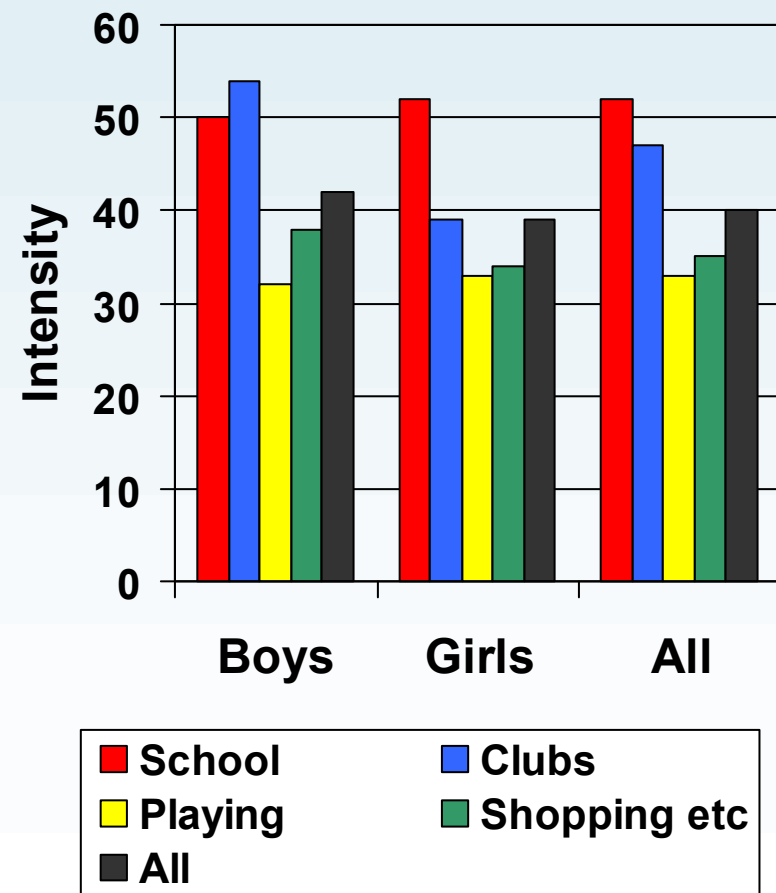




## Intensity of walking to events

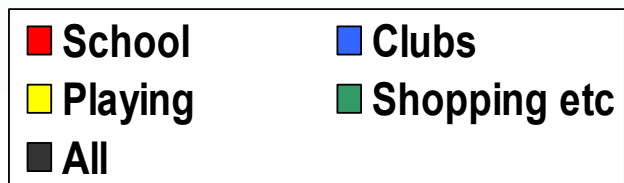
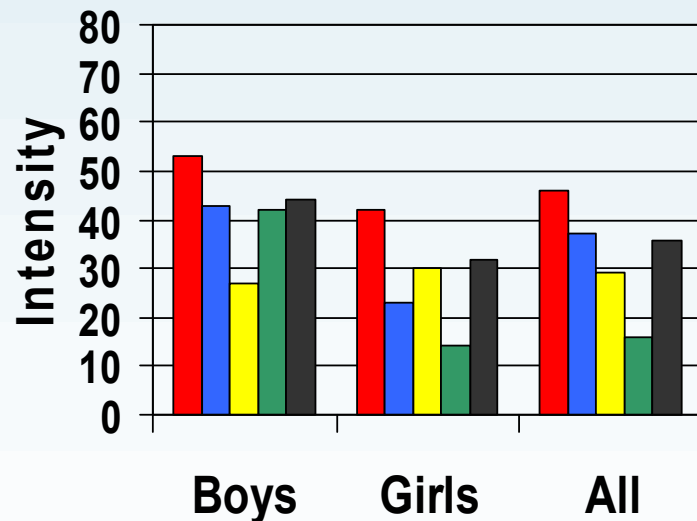
(in  $10^{-2}$  activity calories per kg of body weight)

- Boys use more energy than girls when walking.
- Walking to school tends to be the more intensive type of walking.
- But, boys tend to walk even more intensively when walking to clubs.
- Walking to play tends to be the least intensive.

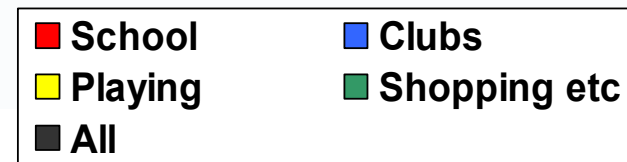
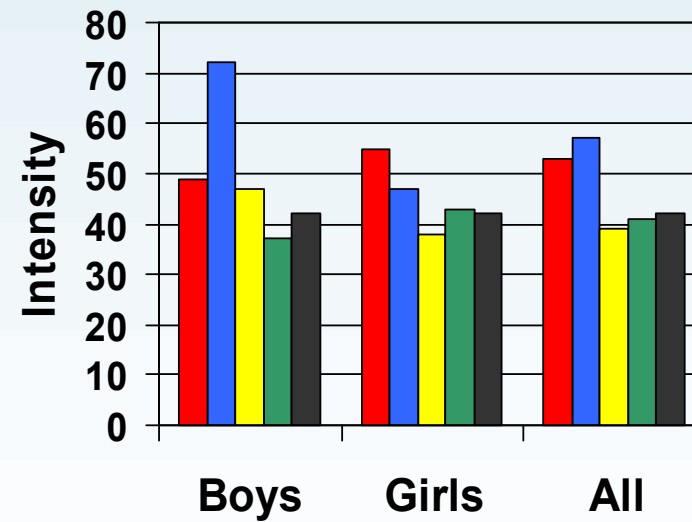


# Intensity of walking to events (in $10^{-2}$ activity calories per kg of body weight)

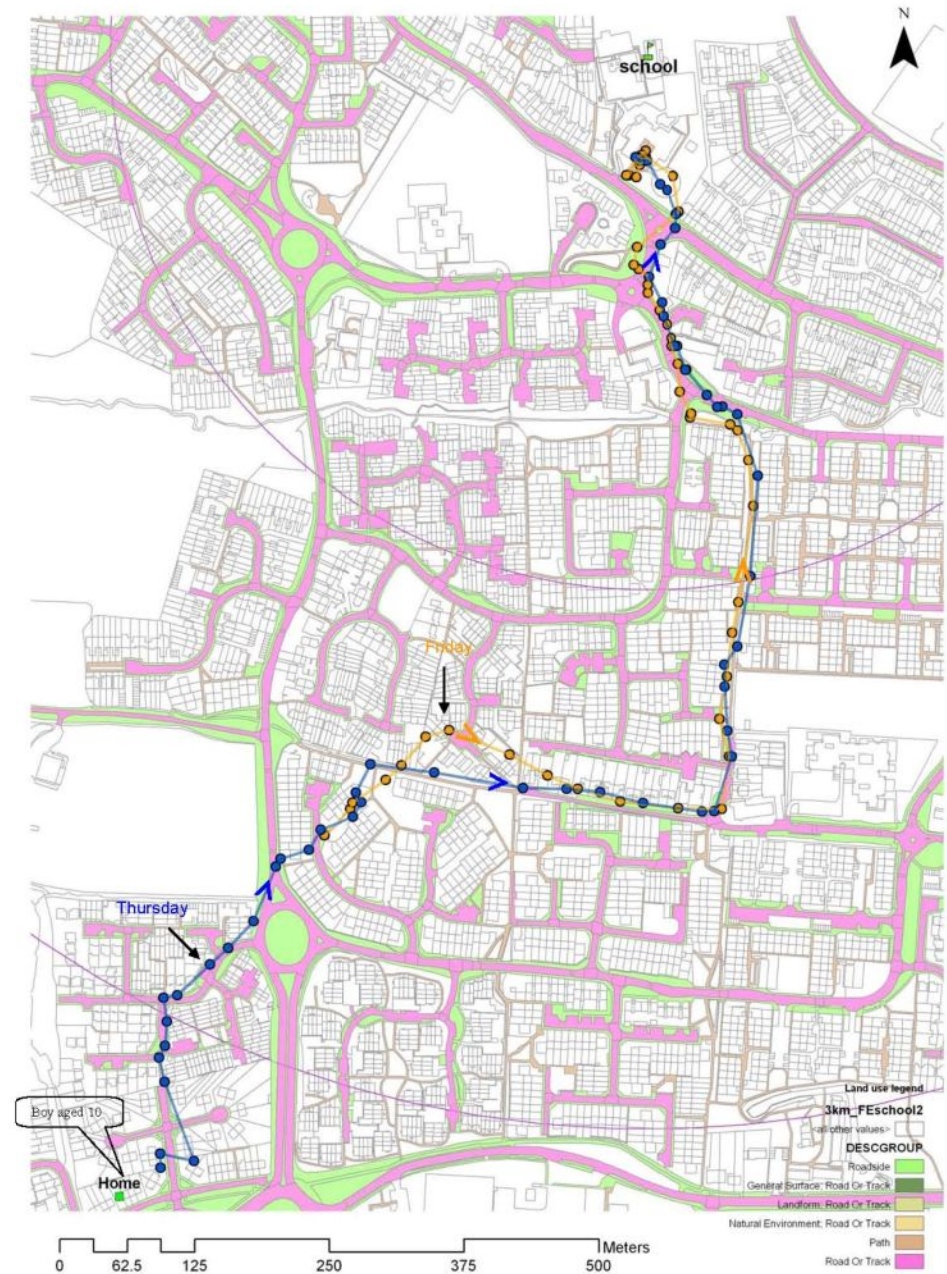
Not accompanied by an adult



Accompanied by an adult



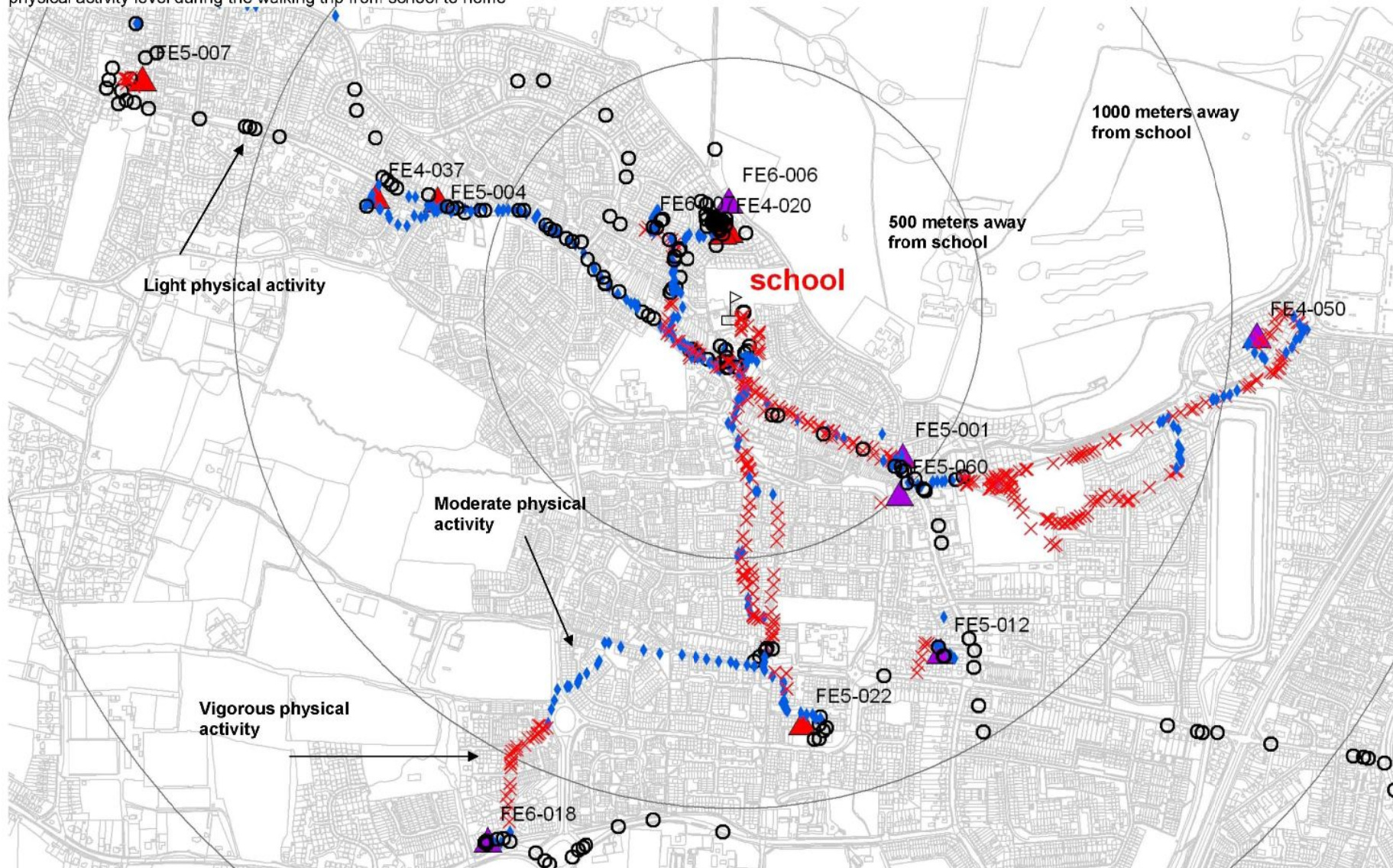
# GPS plots of a boy aged 10 walking to school



School journeys on foot from home to school

# Physical activity levels walking home from school

physical activity level during the walking trip from school to home



# The location of unstructured activities

Locations of unstructured activities

