



Assessment of Cycle Challenge initiatives — cycling to school

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Executive Summary

The Transport Research Laboratory (TRL) has monitored two Cycle Challenge schemes designed to encourage the use of bicycles for journeys to and from school.

Warwickshire County Council's scheme provided cycle parking stands at three schools in Warwick, and proposed the introduction of a cycle permit (similar to an MOT for cars). The scheme developed by the London Borough of Waltham Forest also provided cycle stands at a total of 12 schools and colleges and initiated a cycle training programme. Cycle promotion packs were distributed and the planning of safe routes to school was encouraged, using the packs and through Personal and Social Education lessons in school.

The principal findings of this study are:

- The installation of cycle parking stands, although welcomed by the schools, did not in itself bring about any significant increase in the number of children cycling to school, either in Waltham Forest or in Warwick.
- The number of children cycling to Myton school, one of the Warwick schools, was already high (18% of the 1100 pupils) before Cycle Challenge and the installation of 100 additional cycle stands appears to have had less impact than local issues (including a 10 minute delay imposed on departing cyclists in order to keep them away from parents' cars and pedestrians).
- The administration of the Cycle Permit scheme has proved an onerous task for teachers at Myton school and the response from pupils was disappointing. Out of 113 whose bicycles failed an initial maintenance check (89% of those tested), only 4% of pupils proceeded towards obtaining their permit. The future of the scheme is uncertain, as teaching time already faces other administrative demands.
- For children, one of the main practical disadvantages of the Cycle Challenge facilities in Warwick and Waltham Forest is that they do not feel their bikes are safe from theft and vandalism in open bike stands.
- Fine details of cycle promotion campaigns, such as the positioning of parking facilities, can make a large difference. Children, when asked, can help to identify local issues that might alter the impact of national campaigns.

Given the requirements of the National Curriculum, SATS targets and preparation for OFSTED inspections, the support for any new initiative in schools will depend greatly upon its direct contribution to these key areas. Measures to promote cycling are therefore more likely to depend upon the enthusiasm and dedication of individual trainers and teachers.

Even after the provision of open stands, at least two thirds of respondents were still concerned about their bikes being stolen or vandalised. Similar numbers were concerned about fast traffic, the weather, about being attacked by strangers and about wearing a helmet. Less than half were bothered about distance, hills, the need for cycle lessons, and lack of parental or peer-group approval.

Cycling is one of the least frequently chosen modes of travel to school. Much of this may be due to the relatively short distances involved for many pupils. When asked why non-cyclists chose another mode of transport to get to school many children mentioned danger, theft, attacks from strangers etc. but another key factor was that they enjoyed socialising with friends either on the bus or walking. Many believed that this would not be so possible if they cycled to school. However, this suggests that if some children began to cycle a 'snowball effect' could encourage others to follow their lead.

The Cycle Challenge schemes in Warwick and Waltham Forest had in common the aim of encouraging children to cycle to school. Questionnaires indicate that some increase in cycling may have resulted, but in neither area was the increase statistically significant.

The cycle training programme in Waltham Forest got off to a good start and has been observed working successfully in three schools in the borough. At least 80 children at two schools have had training so far, and at a third school an after-school cycling club has been set up.

As a result of the Cycle Challenge initiative, both of the local authorities have generated new ideas, some of which have proved more workable than others. In general, it appears that children respond better to the idea of cycling when it is promoted as 'fun' rather than when the emphasis is on bicycle roadworthiness and personal safety. It remains to be seen whether, once the enthusiasm for cycling is generated, the other benefits will gradually be recognised.

1 Introduction

Cycle Challenge was an initiative of the former Department of Transport (now Department of the Environment, Transport and the Regions) to encourage the use of bicycles for short trips. Launched in July 1995, Cycle Challenge invited commercial, voluntary and public sector organisations to produce innovative designs and partnerships to help increase cycle use. In December 1995, the Department of Transport distributed nearly £2 million between the 62 successful Cycle Challenge projects. Some of the money which was granted was allocated to schools to encourage pupils to cycle to school.

The Transport Research Laboratory was invited by the Driver Information and Traffic Management Division of the Department of Transport to monitor a selection of Cycle Challenge schemes including two schemes designed to encourage the use of the bicycle for trips to and from school. The London Borough of Waltham Forest stated their objective as ‘to get school children back on their bikes’ and ‘to increase the numbers cycling to school to 5% in their first year’. Warwickshire County Council’s objective was ‘to encourage the use of the cycle as a method of transport for school children’. The aim of the research presented here was to analyse the extent to which the above objectives and the objectives of Cycle Challenge have been achieved in these two areas. The objectives of the research were:

- to monitor attitudes to cycling and changes to travel behaviour resulting from the individual schemes;
- to assess the success of the schemes in meeting other objectives identified in the local authority proposals;
- to assess the potential for a more widespread application of the schemes.

2 Details of the schemes

2.1 Waltham Forest

The Bike to School Scheme began in Waltham Forest after successfully obtaining £23,000 from the Cycle Challenge Fund. The Council provided £20,000 from their Green Charter funds, bringing the total cost of the scheme to £43,000. A total of 600 cycle parking stands were fitted at nine schools and three colleges in the borough in May 1996 (the number of stands per school varying between 20 and 144). The Bike to School Scheme was launched for the press the following month. Maps and leaflets about cycling locally called ‘Bike to School Packs’ were issued to each child who requested a copy. The overall aims of the scheme were ‘to familiarise more teenage children with

cycling so that they are more likely to cycle as adults and also to make them more aware of the needs of cyclists if and when they become car drivers’.

An extension to the scheme was to provide one-to-one cycle training, from April 1997 onwards. The cost of this was not included in the original proposals and the search for funding is ongoing. Although not strictly part of Cycle Challenge, the training was triggered by it, in response to concerns over the safety implications of encouraging children to cycle to school in a very busy built-up area.

2.2 Warwick

Warwickshire County Council provided cycle parking stands at three schools. The safety aspect was emphasised by the need for children to have cycle permits which were to be issued by the child’s school if the child’s bike was considered safe to ride. A programme of road safety education was included in Personal and Social Education lessons, and schools were visited by a Theatre in Education production on road safety.

3 The study

All three schools in Warwick and a sample of three schools in Waltham Forest, selected by the local authority, were approached to help with the Cycle Challenge evaluation. In each area at least two of the schools approached were initially willing to help but as the programme developed only one school in each area was able to take up all the proposed Cycle Challenge monitoring activities and the evaluation was limited to these schools.

The two schools who participated in the research came from very different backgrounds. Waltham Forest in north east London has a higher than average proportion of children of parents from an ethnic minority and the schools in the area therefore cater for a mixture of pupils from different cultural backgrounds. Warwickshire serves a more affluent community. The schools also have very different academic records as shown in Table 1.

Contacts at the two schools were established and arrangements for data collection were subsequently made with teachers. It was clear from the outset that the Cycle Challenge projects had placed an additional responsibility on the shoulders of heavily burdened teachers. It is not surprising that there was some reluctance to allow the added intrusion of researchers wanting to visit the schools to interview pupils. The methods of data collection used were therefore influenced by the need to minimise disruption in participating schools and the effort required by teachers to organise them.

Table 1 A comparison of academic records* at the schools surveyed (1997)

	<i>Proportion with special educational needs</i>	<i>% obtaining A-C pass at GCSE/GNVQ</i>	<i>% of half days unauthorised absence</i>
McEntee School, Waltham Forest	17/746 (2.3%)	20	5.2
Myton School, Warwick	5/1461 (0.3%)	52	0.4
England	-	45.1	1.0

* Figures taken from Times Educational Supplement, January 1998

3.1 Questionnaire surveys

On Thursday 10 July 1997 questionnaires were distributed at McEntee School, Waltham Forest, during morning registration. Morning registration was extended to allow pupils to complete the questionnaires under the supervision of teachers. Two research representatives were present if any problems arose. Pupils in years 7 to 10 were targeted (i.e. ages 11 to 15). A total of 240 questionnaires were returned for analysis.

On Wednesday 9 July questionnaires were distributed at Myton School, Warwick, and 40 questionnaires were completed. A smaller sample size was chosen, allowing close supervision by the two research representatives, resulting in the questionnaires being completed to a high standard. Three further classes were surveyed on Thursday 17 July resulting in 61 questionnaires being completed. A total of 101 questionnaires were therefore available for analysis.

When questionnaires were administered at Waltham Forest LB, the cycle stands had been installed and the Bike to School packs distributed. In Warwick, the new cycle stands had been in place for almost a year but the cycle permit scheme was in its infancy at the time the questionnaires were completed.

3.2 Discussion groups

Qualitative research using discussion groups took place at Myton School and McEntee School after the Cycle Challenge scheme had been established. The purpose of this was to try to assess whether the children's attitudes had changed towards cycling since Cycle Challenge and what the pupils thought of the different initiatives. Both school discussions were led by a trained schools specialist and were attended by two researchers from TRL who observed the sessions and took notes. Each session was also recorded on tape.

Two discussion groups were held at McEntee School on the morning of Thursday 13 November 1997. The first group consisted of 11 pupils - 10 boys and 1 girl, ranging from Year 8 to Year 10. The second group involved 10 pupils - 6 boys and 4 girls, ranging from Year 8 to Year 11. Therefore, the children in the discussions were between the ages of 12 and 16. Participants, all of whom owned a bicycle but did not necessarily use it to cycle to school, were selected by a teacher and knew the topic for discussion before they arrived.

One half-hour discussion was held at Myton school, Warwick, on Wednesday 12 November 1997. Twenty-two pupils from year 9 (age 13 to 14) had assembled for a normal lesson - they had not been informed that the discussion was about to take place.

4 Results

4.1 Scheme development

4.1.1 Waltham Forest

The Cycle Challenge scheme coordinator in Waltham Forest supplied the following information regarding all the schools in the scheme, not just those participating in the research.

The number of children attracted to cycling varied enormously from school to school and according to weather. It soon became evident that the success, particularly of the promotional elements of the scheme, depended heavily on the enthusiasm of staff in schools. Concerns about safety for pupils were addressed by arranging for Road Safety Officers to visit schools and provide details of Cycling Proficiency courses to be held during summer 1996.

Questionnaires designed by the local authority and administered in a selection of schools found that the issue of safety was the key deterrent to the scheme taking off, and therefore, in April 1997, a programme of one-to-one training was initiated. Four cycle trainers were hired and during the summer term 113 children in seven schools received three one-hour lessons on routes from their homes to school and also on main roads. In addition, 45 children took part in activity weeks which included both on-road training and leisure trips around Epping Forest. Teachers' Packs were provided for lessons on cycling within Personal and Social Education lessons. These covered the environmental and health benefits of cycling as well as learning how to design safe routes to school.

In the autumn term, 1997, many schools were keen to carry on with the project and organised timetables to include cycling. At least one school was considering funding the trainers to assist with cycling as a sports activity.

4.1.2 Warwick

The three schools included in the Cycle Challenge scheme in Warwick are all situated along the Myton Road which runs from Warwick to Leamington Spa along the south side of the River Avon. The catchment area for all three includes the mainly residential areas of the two towns to the north of the river. Access for pupils travelling to the schools on foot or by bicycle is facilitated by a recently constructed river bridge joining parkland on both sides and also by a Toucan crossing on Myton Road.

Two of the schools, Myton School (grant maintained) and Trinity School (local authority funded) already had a fairly high proportion of pupils cycling to school before Cycle Challenge. The third, Warwick School, is an independent school. It draws its students from a much wider area, making travel by car and bus more common.

One hundred cycle stands were installed at Myton School in September 1996. The same number of stands were provided for Trinity School and were installed either at the school's main site or at its annexe, Dormer School. It was hoped that this would encourage more cycle use on pupils' journeys between the two sites as well as to and from home. Only fifty stands were provided at Warwick School because of the smaller number of potential cyclists.

The permit scheme at Myton School was launched in May 1997. In the first phase of this, a survey was carried out to determine how many pupils had bicycles. Then, letters were sent to all parents explaining the scheme and requesting permission for their child's participation. A timetable for maintenance checks to be carried out on 172 bikes on two days in June was drawn up. In the event, only 127 checks were completed because of failure to bring

bikes in on the correct day,(mainly due to exceptionally bad weather), and withdrawal from the programme. Only 14 bikes (11%) passed the first inspection and only four or five of the 113 pupils whose bikes failed brought back signed forms indicating that their bikes had undergone the necessary repairs.

4.2 Questionnaire surveys

The results have been analysed separately for the two schools involved.

4.2.1 McEntee school, Waltham Forest

A total of 240 questionnaires were returned for analysis. Despite questionnaires being completed under supervision there was evidence, in the responses, of some misunderstanding, leading to inconsistencies. However, some trends are clear and useful information was obtained, particularly from the responses to the open-ended questions.

Distance travelled to/from school:

‘Crow-flight’ distances travelled were determined from maps attached to the questionnaires on which respondents plotted their routes to school (see Table 2).

Table 2 Distance travelled to/from McEntee and Myton School

Distance from school	% at McEntee School Waltham Forest	% at Myton School Warwick
‘Walking Distance’ (Up to 1km)	40	9
‘Cycling Distance’ (1-3km)	40	59
More than 3km	20	32

Of the children interviewed at McEntee, 80% lived within 3km (1.86 miles) of school. Therefore, a high proportion of pupils were living within a distance which was reasonable to cycle. Forty per cent, however, lived within one kilometre (just over half a mile), a reasonable walking distance.

What mode of transport do children use to travel to school?:

Over half the respondents at McEntee (53.3%) claimed that they walked to school regularly and 14.2% said they regularly cycled. Some pupils who travelled to school by car had to make their own way home on foot or by public transport. A total of 57 respondents to the questionnaire survey (23.7%) said that they cycled to school on a regular or irregular basis.

As the questionnaires were completed after the introduction of the Cycle Challenge initiatives, it was necessary to ask whether, based upon recollection, there had been any increase in the numbers or frequency of cycling as a result of the measures introduced through Cycle Challenge. Of the children who commented on the effect of the cycle stands, 42% claimed to cycle more often. However, since their installation 25% said they cycle less often suggesting other issues are of equal or

greater influence. Forty-eight per cent of the pupils who had seen a Bike to School Pack thought it was ‘good’ or ‘very good’ and of those who commented on it’s effectiveness, 32% claimed to cycle to school more often since reading the pack.

What are children’s concerns about cycling?:

Although it seems the Cycle Challenge initiative has encouraged some children to cycle to school, to increase this number further the negative perceptions that the respondents have of cycling need to be identified.

More than half the respondents were bothered about their bikes being stolen (78%) or vandalised (69%), fast traffic (74%), being attacked by strangers (67%), the discomfort and ‘uncoolness’ of wearing a helmet (64%) and bad weather (62%). Less than half were bothered about friends laughing at them, hill cycling, lack of cycle lessons and parents not allowing them to cycle to school (see Table 3).

Table 3 Concerns about cycling - McEntee, Waltham Forest

	Bothers a lot	Bothers a little	Bothers not at all
Attacks by strangers	40.1%	27.0%	32.9%
Wearing a helmet	39.2%	25.2%	35.6%
Bike being stolen	38.5%	39.4%	22.2%
Bike being vandalised	37.5%	31.9%	30.6%
Bad weather	30.6%	31.5%	37.8%
Fast traffic	30.2%	43.6%	26.2%
Distance to school	25.0%	26.4%	48.6%
Cycling up hills	20.4%	29.2%	50.5%
Parents not liking it	16.5%	22.0%	61.5%
Friends laughing at you	10.1%	19.3%	70.6%
Lack of cycle lessons	7.5%	27.1%	65.4%

In general, children who never cycle had more concerns than those who cycle daily. For example, 78% of non-cyclists were concerned about fast traffic compared with 43% of regular cyclists. When asked why the non-cyclists chose another mode of transport to get to school many mentioned the above aspects, but another key factor was that they enjoyed socialising with friends either on the bus or walking. Many believed that this would not be so easy if they cycled to school.

What would encourage children to cycle to school?:

The above factors illustrate what children perceive as problems of cycling. In addition, non-cyclists were asked what would encourage them to cycle to school and existing cyclists what would encourage them to cycle more (Table 4).

A total of 82% said they would be a little or much encouraged by more cycle lanes and 78% by secure cycle parking. Another big encouragement would be having friends to cycle with. Therefore, it would appear that if some children began to cycle a ‘snowball effect’ could occur with other pupils following their lead. Previous TRL research into attitudes to cycling amongst children (Finch & Morgan, 1985; Davis et al, 1997) found that teenagers, particularly girls, can become increasingly resistant to cycling as they get older. Those aged over 13 are probably a difficult group for promoting cycling.

Table 4 Things which would encourage cycling - McEntee, Waltham Forest

	<i>A lot</i>	<i>A little</i>	<i>Not at all</i>
Cycle lanes	57.1%	24.9%	18.0%
Safe cycle parking	48.6%	29.8%	21.6%
Slower cars	37.8%	36.9%	25.3%
More friends cycling	39.2%	35.5%	25.3%
Lockers for belongings	44.4%	22.7%	32.9%
School being more enthusiastic	23.6%	40.7%	35.6%
Parents being more enthusiastic	21.7%	35.4%	42.9%
Owning a better bike	29.9%	25.2%	44.9%
More cycle lessons	24.4%	28.1%	47.5%

4.2.2 Myton school, Warwick

Myton school provided a total of 101 valid questionnaires for analysis.

Distance from school:

Table 2 shows that of the 101 children interviewed only 9% live within one kilometre of the school, a reasonable walking distance. The school has a good academic reputation and a substantial number of pupils (32% of the sample) travel more than 3km to reach the school.

What mode of transport do children use to travel to school?:

The proportion of respondents who claim to use a bicycle regularly to travel to school is high at 25%. A further 9% use their bicycles once a week or less often and gave other modes as their regular mode. Thirty-three per cent of all the children say they regularly walk to and from school and 42% usually travel by car.

Of the 34 pupils who said they cycled to school regularly or irregularly, 4 claimed to cycle a lot more often and 5 a little more often following the installation of stands and the introduction of cycle permits. Only 2 pupils said they now cycled less. Overall, this suggests an increase in the number of pupils cycling to school on a typical day.

What are children's concerns about cycling?:

Table 5 Concerns about cycling - Myton, Warwick

	<i>Bothers a lot</i>	<i>Bothers a little</i>	<i>Bothers not at all</i>
Wearing a helmet	53.5%	27.7%	18.8%
Bad weather	35.6%	43.6%	20.8%
Attacks by strangers	28.7%	30.7%	40.6%
Distance to school	28.7%	23.8%	47.5%
Bike being stolen	26.7%	47.5%	25.7%
Fast traffic	26.7%	47.5%	25.7%
Bike being vandalised	23.8%	48.5%	27.7%
Cycling up hills	21.8%	31.7%	46.5%
Friends laughing at you	12.9%	19.8%	67.3%
Parents not liking it	9.9%	19.8%	70.3%
Lack of cycle lessons	2.0%	18.8%	79.2%

The factors associated with cycling that pupils at Myton School were mostly concerned about included wearing a cycle helmet (81%), bad weather (79%), fast traffic (74%), having their bike stolen (74%) and having their bike

vandalised (72%). About half were bothered by distance to school, cycling uphill and attacks by strangers. Relatively few were concerned about friends laughing at them, lack of cycle lessons and their parents not liking them cycling.

The key factors which bothered children at Myton were different to those worrying McEntee pupils. In particular, pupils at Myton were bothered more about wearing a cycle helmet than pupils at McEntee. Also, more of the *regular* cyclists at Myton had concerns about cycling than their counterparts at McEntee. Eighty per cent of regular cyclists at Myton were concerned about fast traffic compared with 43% at McEntee.

What would encourage children to cycle more?:

When asked which of a number of factors would encourage them to cycle, respondents at Myton school gave similar answers to those recorded by McEntee pupils (see Table 6). These included more cycle lanes, safe cycle parking, slower cars, more friends cycling, and owning a better bike. In addition, about half would be encouraged by lockers for belongings, and schools and parents being more enthusiastic. Overall, the biggest encouragement to Myton school pupils would be an increase in the provision of cycle lanes - a total of 87% said this would encourage them 'a lot' or 'a little'. Again the influence of friends was an important factor in whether children could be persuaded to cycle to school.

Table 6 Things which would encourage cycling - Myton, Warwick

	<i>A lot</i>	<i>A little</i>	<i>Not at all</i>
Cycle lanes	59.4%	27.7%	12.9%
Safe cycle parking	38.6%	44.6%	16.8%
Slower cars	29.7%	48.5%	21.8%
More friends cycling	26.7%	39.6%	33.7%
Owning a better bike	39.6%	24.8%	35.6%
Lockers for belongings	30.7%	23.8%	45.5%
School being more enthusiastic	14.9%	38.6%	46.5%
Parents being more enthusiastic	16.8%	27.7%	55.4%
More cycle lessons	7.9%	34.7%	57.4%

4.3 Discussion groups

4.3.1 McEntee school, Waltham Forest

All 21 pupils in the two discussion groups owned bikes, although only six presently cycled to school. Things which the groups thought were good about cycling were:

- exercise;
- an inexpensive mode of transport once the bike had been purchased;
- quick and efficient, enabling pupils to get up later but still get to school on time;
- an enjoyable activity.

Bad things identified were:

- rubbish on the roads causing cyclists to slip;
- not possible to carry a lot of school books;
- car fumes;
- not very safe;

- punctures;
- other pupils playing pranks (e.g. letting tyres down) and laughing at poor bikes;
- bad weather.

Skirts and tights and worrying about their appearance made cycling a problem for girls. Pupils in year 11 said they cycle less because of reasons associated with exams, extra books, interest in the opposite sex, and work experience.

The cycle stands installed through Cycle Challenge were thought to be easy to use but were too small and close together resulting in bikes getting scratched; also the metalwork was too wide for some locks. A cycle shed locked by the caretaker was suggested by the group as this would prevent items being taken off bikes and tyres being let down. It was agreed that vandals should be reported if seen because it was felt that those monitoring the cycle stands through CCTV weren't always willing, or able, to identify offenders. It was also suggested that the school should keep a puncture repair kit on site.

The Bike to School Packs were considered 'worth having' by those who had received them (although predictably some thought they were 'boring'). The information given in them was useful and had encouraged some to cycle.

Cycle training consists of guided rides, during school hours, led by specialist trainers.

Comments about the cycle training were generally positive:

- it increased confidence resulting in pupils riding on the road rather than on the pavement;
- it was fun;
- it allowed time off other lessons.

Some said they enjoyed and benefitted from cycle training so much that they would have participated in their own time if they had had the opportunity. The training is voluntary and is offered to certain year groups through Personal and Social Education (PSE) lessons taken by one of the trainers. Others then want to participate because their friends are doing it or because they hear other pupils saying it was fun.

Following the discussion group research, the pupils were set tasks. Firstly, each pupil had to take one aspect of the Cycle Challenge scheme and write down its good and bad points. Figure 1 is an example of the bubble diagrams produced; the contents of the other diagrams are listed below the figure. The second task was for the pupils to work in groups to suggest additional things, other than those tried in Waltham Forest, which would market or encourage cycling to school. The ideas are summarised in Figures 2 and 3. These figures illustrate that children can provide useful information. A common suggestion not included in Cycle Challenge but which could help to increase bicycle use was cheap or discounted bike accessories especially the availability at the school of puncture repair and tool kits.

4.3.2 Myton school, Warwick

Of the 22 children participating in the discussion, 14 owned a bicycle and 9 cycled to school on a regular basis.

Reasons for cycling included 'can't be bothered to walk' and 'get home quicker'. Reasons given for not cycling were having to lock up the bike, possible accidents, not being allowed to cycle to school because it was too far, and having to wear helmets which are considered 'uncool'.

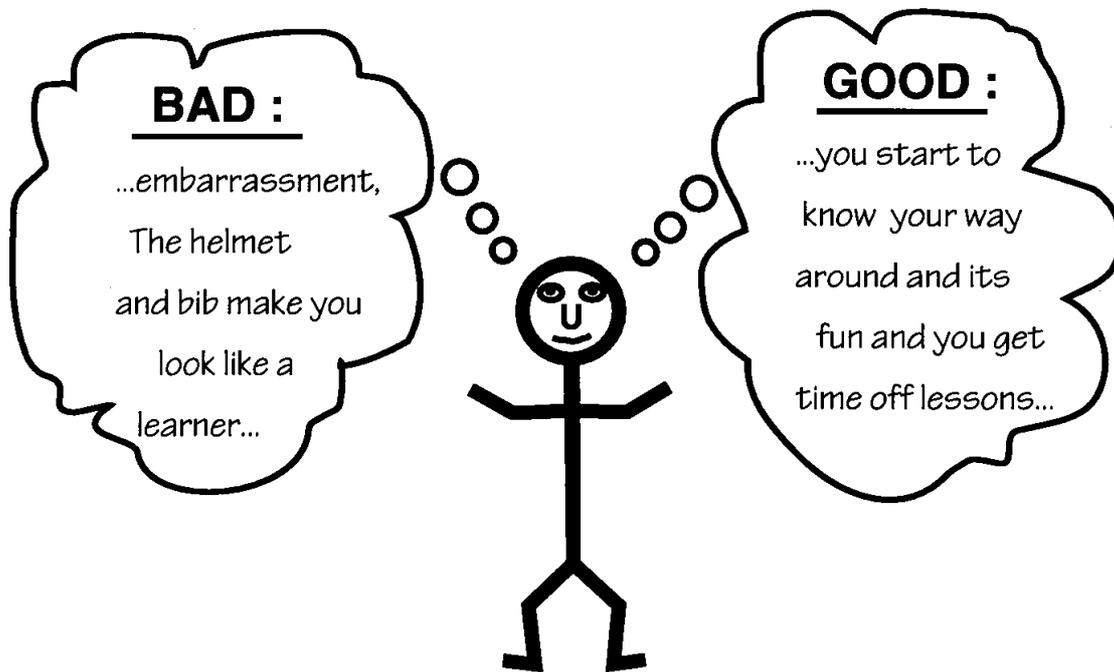
The group were generally unaware of any changes in the arrangements for cycling to school which might have occurred over the last year. The increase in the number of cycle parking stands (Cycle Challenge provided 100 extra stands in September 1996) had not been noticed. The children said there still weren't always enough stands, in which case bikes were locked to each other or to a fence. The upper school had cycle sheds which were kept locked during the day and these were considered by the discussion group to be much more satisfactory than the stands. Nobody in the group had started cycling because of the stands but it was generally felt that stands, especially with more space between them, would reduce the disincentives to cycling.

One particular problem for cyclists at this school was the requirement that they remain in school until 3.40pm, 10 minutes after finishing lessons, to allow pedestrians to leave the site first and to avoid conflict with parents' cars. Removal of this constraint would require changes to access gate arrangements, but might encourage more cycling. The group also suggested a promotional evening, a club, and letters to parents. Potential cyclists were put off by not being able to talk to friends when cycling and by the busy road outside the school - there is a cycle track shared with the footway but it was felt that this should be wider as there are several schools served by this same road; also short routes and cut-throughs would help. The hire of bicycle locks in school was suggested.

Two focus group discussions were held with small groups of 4-6 children each who had participated in the cycle permit scheme. One group had completed the repairs necessary and returned the permit for stamping, as required, the other group had failed to verify the necessary repairs. In the event, it was found that views of the two groups were similar, and that the reasons for not returning the permit were practical ones such as misunderstanding the requirements or losing the forms.

Pupils were generally supportive of the cycle permit scheme and thought that it was reassuring for their parents to know that their bicycles were in good order. The bikes that had been repaired required minor attention such as inflating tyres, mostly done by parents or the pupils themselves. For the pupils the time needed to have the bike inspected represented a good opportunity to be excused lessons for 15 minutes. Most thought it unlikely that they would be able to remember to carry the permit with them at all times, and one suggested that a sticker to go inside the diary that they all do carry would have been better.

Some indication of the problem for teachers was illustrated by comments such as 'when I went to take my bike for testing it was joined up with my mate's bike chain, so I had to come back during the afternoon when his was done' and 'I lost my permit and when I went to get another one off the teacher he was never there'.



An example of the thoughts of one child (above) and a list of typical responses by others (below)

Bad aspects of Cycle Challenge

- Punctures
- Not everyone got a booklet
- Wasting time if someone puts their bike with yours
- Bikes get vandalised and rust
- CCTV doesn't pick up who's vandalising bikes
- Don't get long enough cycle lessons
- Wearing yellow bibs and helmets
- Stands are too thick to get a D Lock around

Good aspects of Cycle Challenge

- You start to know your way around
- Cycle lessons are fun
- Getting time off lessons
- Safe leaving your bike outside school and if bike is vandalised you can find out who did it from CCTV
- Trainers make sure bikes are in good order
- Cars slow when you wear the yellow bib
- Cycling makes you get to school on time
- I have learned to ride safely on the road and am more confident
- The map in the 'Cycle to School' booklet

Figure 1 Cycle Challenge: schools groupwork

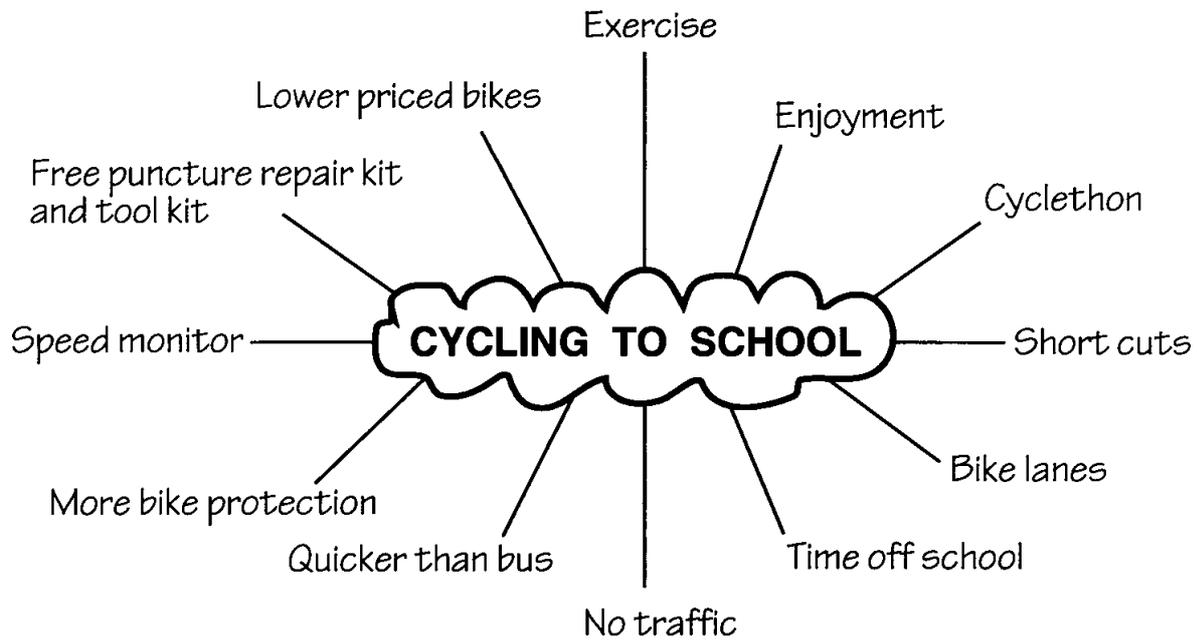


Figure 2 Marketing cycling to school — McEntee School, discussion group 1

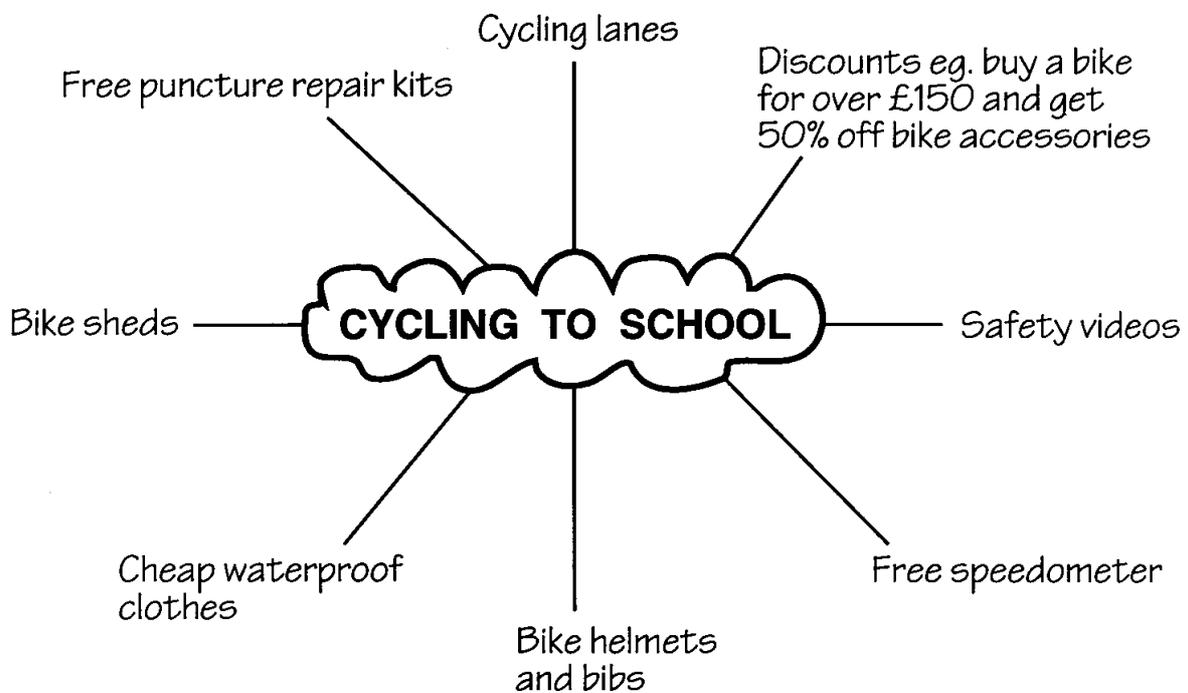


Figure 3 Marketing cycling to school — McEntee School, discussion group 2

4.4 Interviews with teachers and trainers

4.4.1 Waltham Forest

4.4.1.1 Teachers

Teachers at two schools in Waltham Forest, other than McEntee where the survey work took place, were interviewed.

A teacher at Aveling Park School felt there had been a slight increase in cycling to the school since the Cycle Challenge initiative began, due to the improved cycle parking facilities and the cycle training. However, many children at the school either live close enough to enable walk trips, or too far away for cycling. The teacher praised the work of the cycle trainers who were considered to have improved the safety of the children who cycle whilst further encouraging cycling by making the lessons more enjoyable for the pupils than the traditional cycling proficiency training in the school playground. She had noticed that fewer girls undergo cycle training as girls have more image related difficulties with cycling.

The pupils at Aveling Park, in common with those interviewed at McEntee, are averse to wearing cycle helmets, especially those provided (and compulsory) for on-road training, because of the image they create. A similar attitude amongst young people was found in a national study of helmet wearing (Taylor & Halliday, 1996).

There has been no real change in the attitude of Aveling Park teachers towards cycling to school. The school has never been against cycling but now certain teachers do actively encourage it. Cycling is promoted through PSE lessons as a healthy activity, and pupils who do cycle now enjoy small privileges, such as being allowed to take a short cut through the car park while pupils who walk have to walk all the way around the school.

There was further evidence that teachers appreciated the effort of Cycle Challenge, at Walthamstow School for Girls. One teacher who participates in the Cycling Club at this school praised the cycle training and the new cycle stands, as previously they only had metal racks to which children could not lock their frames. She also confirmed that the Bike to School packs were widely distributed to pupils and many leaflets were pinned to noticeboards around the school.

4.4.1.2 Trainers

Specialist cycle trainers are employed at three schools in Waltham Forest - McEntee, Aveling Park and Walthamstow Girls. Each school's training is organised differently but all three have a keen teacher who is prepared to organise cycling activities.

Since the beginning of the training scheme in April 1997 about 40 volunteer pupils at McEntee school have participated in cycle lessons. A very successful aspect of cycle training at McEntee was an activity week. The children were taught about many different aspects of cycling including bicycle maintenance, map reading, racing, leisure cycling through Epping Forest and road cycling. The activity week was considered a success and has encouraged some more pupils to request cycle training this term.

Aveling Park children who use a bike are obliged to have cycle lessons and all pupils are taught about cycling as part of their Personal and Social Education curriculum. Cycle training only occurs during these lessons. About 40

pupils have been trained during the first six months. Some of the children from Aveling Park also took part in a London Borough Schools Pentathlon which included cycling. Trainers helped pupils to prepare for this event and the school came second in cycling. This has raised the profile of cycling in the school. Pupils are now beginning to see that they can enjoy cycling as a leisure activity and that lessons do not necessarily focus on cycling as a road safety problem.

Cycle training at Walthamstow Girls has been running as an after school club since the beginning of the 1997 autumn term. Therefore, the trainers rely solely on volunteers. A maximum of 11 pupils attend the Cycling Club after school.

One trainer claims that since the beginning of cycle lessons at the three schools cycling seems to have increased. It has not been possible to confirm this due to weather and difficulties of access to the school premises by survey staff. Not all the pupils who are trained use their bikes to cycle to school, but a significant number do and some of these children are now very keen cyclists. There are a few who cycle regularly who didn't before. The trainer believes that the increases seen would soon fall away if interest was not maintained and trainers did not keep visiting the schools. The commitment and enthusiasm of the trainers is crucial. A culture of bike riding needs to be instilled into the children and therefore training needs to be ongoing, possibly developing into other areas such as bicycle maintenance.

The attitudes of pupils varied between schools and it is therefore difficult to judge the overall change in attitudes since Cycle Challenge began. However, year 7's (age 11 to 12) tend to be more receptive to the message that cycling is fun and beneficial. At schools where the children are more disciplined generally it is easier to persuade the pupils to take up training. In schools with a genuine interest, cycle training works after school but elsewhere children need to be taught in schooltime for it to be a success. If cycle training is in the timetable, schools place it in either PSE or PE lessons.

A researcher was invited to visit Waltham Forest on Friday 7 November 1997 to participate in a day of cycle training involving three schools. Details of the day are given in Appendix B.

4.4.2 Warwick

The staff involved in the administration of the Myton cycle permit scheme found it a considerable burden. An extra 5 minutes for each of 1500 pupils is equivalent to a total of about 3 teacher weeks. The scheme would require ongoing monitoring and regular updating, using even more teacher time. The year 7 intake would need to be included when they arrived each September. The time taken to set the process up and continue it was considered unacceptable by the teaching staff and there was 'nothing in it for the school' in terms of meeting the league table targets etc. Additionally, some teachers thought that the maintenance inspection was not totally independent: it was done by a local cycle shop who might gain custom for repairs on bikes which failed.

4.5 Poster competition

In December 1997 a poster competition was organised by the Transport Research Laboratory (see Appendix A). Entries were received from both McEntee and Myton schools. Prizes were awarded to the best individual poster design and also to the winning school. The competition posters provided additional evidence of the aspects children consider important about cycling and the benefits that cycling provides.

The benefits of cycling most frequently illustrated in the posters were fitness, the effect on the environment, and that cycling was a fun activity. Fifty one per cent of the posters contained an illustration or comment about fitness, while environmental benefits were mentioned in 33% of the posters. A smaller but significant number also focussed on road safety and the fact that cycling is a cheap alternative to motorised modes of transport. The poster competition has shown that the pupils have grasped the fundamental advantages of cycling and that they have a good understanding of why cycling is important.

5 Conclusions and recommendations

A study has been carried out of two Cycle Challenge schemes designed to encourage the use of bicycles for journeys to and from school, one devised by Warwickshire County Council and the other by the London Borough of Waltham Forest.

The monitoring exercise has been based on questionnaire surveys and discussion groups carried out at two schools, Myton school in Warwick and McEntee school in Waltham Forest. In addition, useful information and opinions have been obtained from local authority representatives, teachers, and, in Waltham Forest, cycle trainers.

The principal findings of this study are:

- In the opinions of children, teachers and cycle trainers, cycling has increased as a mode of transport to school following the introduction of the Cycle Challenge schemes, but the increase is not statistically significant.
- It is evident that the majority of children are still not cycling. This is influenced by journey distances which favour either walking or lifts in parents' cars. The main reasons given for not cycling are that more secure bike parking is required and also more cycle lanes.
- For a training scheme to work well it requires an enthusiastic trainer combined with a committed teacher within the school who will organise the administration of such a scheme.
- A modern approach to training that includes a mixture of cycling in ordinary traffic plus cross country cycling can be more popular with children than training in a playground alone.
- Once children have agreed to attend cycle training of the type offered in Waltham Forest, they quickly accept that cycling can be 'fun'. To translate this into cycling for utility purposes might require a cultural shift by either the school, the parents, or both.

- Local factors unique to each school can discourage cycling. At McEntee School, vandalism due to the siting of bicycle stands and the inadequacy of CCTV was a major disincentive to cycling to school. At Myton School, the delay for cyclists leaving school at the end of the day was considered unfair.
- The administration of a cycle permit scheme has proved an onerous task for staff involved at Myton school, Warwick, and the response to it was disappointing.

This research supports, or adds weight to the following recommendations:

Most children hold rational views on the factors that can encourage cycling and these views should be considered in any campaign to encourage cycling.

In order to encourage cycling among schoolchildren, particularly where there is no tradition of cycling, training schemes should promote leisure and off-road cycling.

Cycling schemes promoted by outside bodies such as local authorities will need to make allowance for payment for specialist support and not rely on schools' goodwill.

One consequence of publishing school league tables is that average school journey length may increase because children travel further to the schools perceived as 'better' because of higher academic achievement. Local authorities in preparing their plan to satisfy the Road Traffic Reduction Act may need to consider the raising of academic standards in local schools as a part of their transport policy as well as part of their education policy.

6 Acknowledgements

The authors gratefully acknowledge the cooperation of and assistance given by the following:

Waltham Forest Ms Gina Harkell, Waltham Forest Borough Council. Teaching staff and cycle trainers at McEntee school, Aveling Park school, and Walthamstow School for Girls.

Warwick Keith Davenport and Milan Tursner, Warwickshire County Council. Staff at Myton school.

7 References

Davies D G, Halliday M E, Mayes M and Pocock R L (1997). *Attitudes to cycling: a qualitative study and conceptual framework.* TRL Report TRL266. Transport Research Laboratory, Crowthorne.

Finch D and Morgan J (1985). *Attitudes to cycling.* Research Report RR14. Transport Research Laboratory, Crowthorne.

Taylor S B and Halliday M E (1996). *Cycle helmet wearing in Great Britain.* TRL Report TRL156. Transport Research Laboratory, Crowthorne.

Appendix A: Poster competition

A poster competition was launched in both Waltham Forest and Warwick. It was open to three schools in each location and offered a prize of £50 to the winning entrant and £250 to his or her school. The competition was promoted by means of an advertisement (Figure A1) placed on notice boards in each school, and announcements in assemblies and art classes.

Winning posters are also included here (Figures A2 to A5).

Healthy Environment **Healthy People**

PROMOTE CYCLING TO SCHOOL



**DESIGN A POSTER AND
WIN
£50 FOR YOU
AND
£250 FOR YOUR SCHOOL**



A scheme known as 'Cycle Challenge' has improved cycling facilities in your school and promoted cycling as a way of travelling to school.

Cycle Challenge gave your school bicycle stands and information leaflets, you may have had cycle training or a cycle permit scheme too. This gave:

- Safer areas to leave bikes.
- Information on road safety and safe routes to school.
- Cyclists more confidence when riding a bicycle.
- Encouragement to children to cycle to school.

Design a poster to promote cycling to school. The poster may be designed using any materials such as pens, crayons, paints. Try to include in your poster the things that are important to you about cycling to school, such as the bicycle stands, cycle training, the information packs and the benefits gained from cycling. Some ideas on this page may help you.

Return your poster to school by December 8th.

GOOD LUCK!

Your strength, stamina, aerobic fitness and muscle function are all **improved** by cycling.

Most Excellent
Cycling is two-and-a-half times more energy efficient than walking - it's not as boring, either.

Figure A1 Advertisement

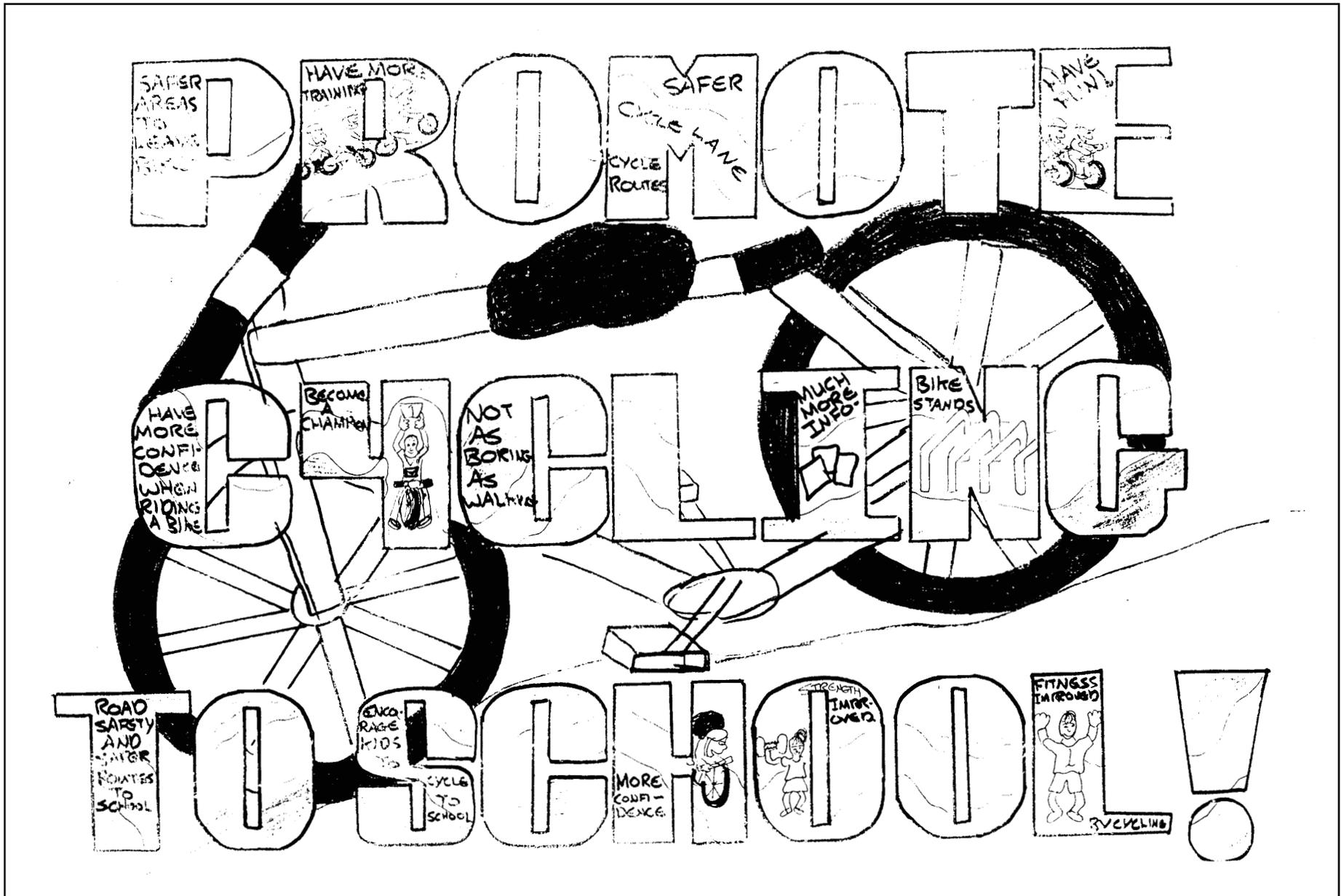


Figure A2 Overall winner, Year 9, McEntee School

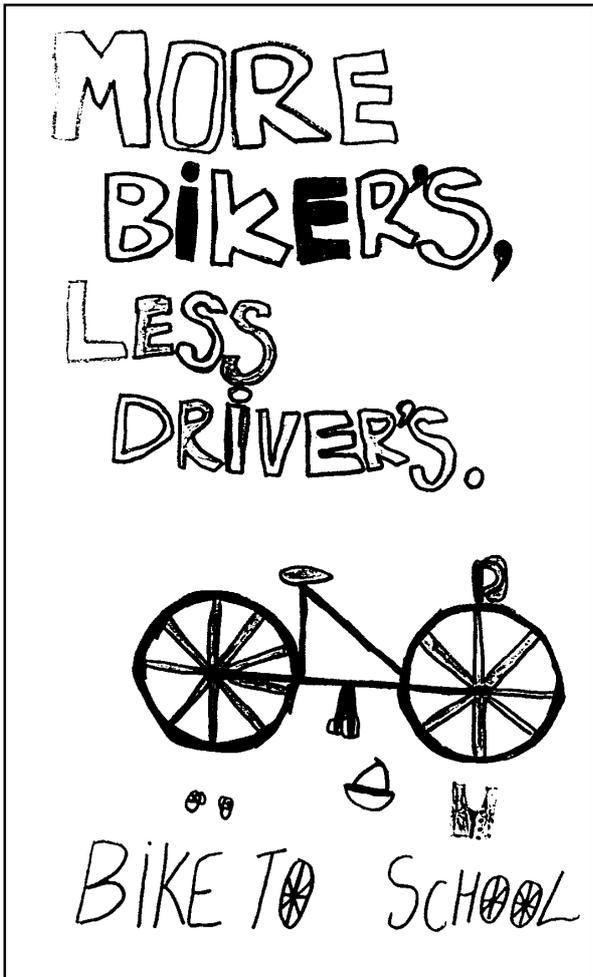


Figure A3 Highly commended, Year 7, McEntee School

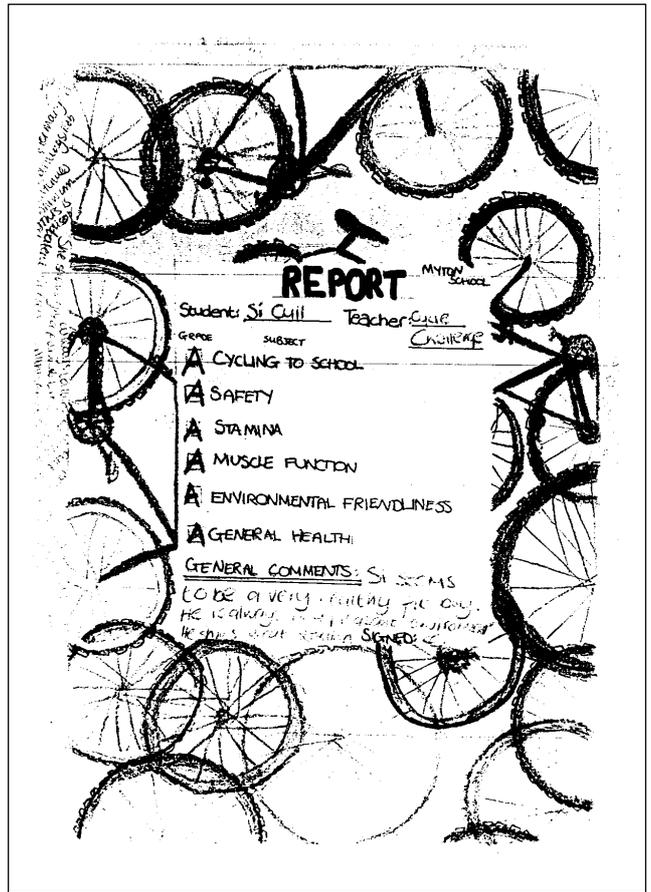


Figure A4 Highly commended, Year 9, Myton School

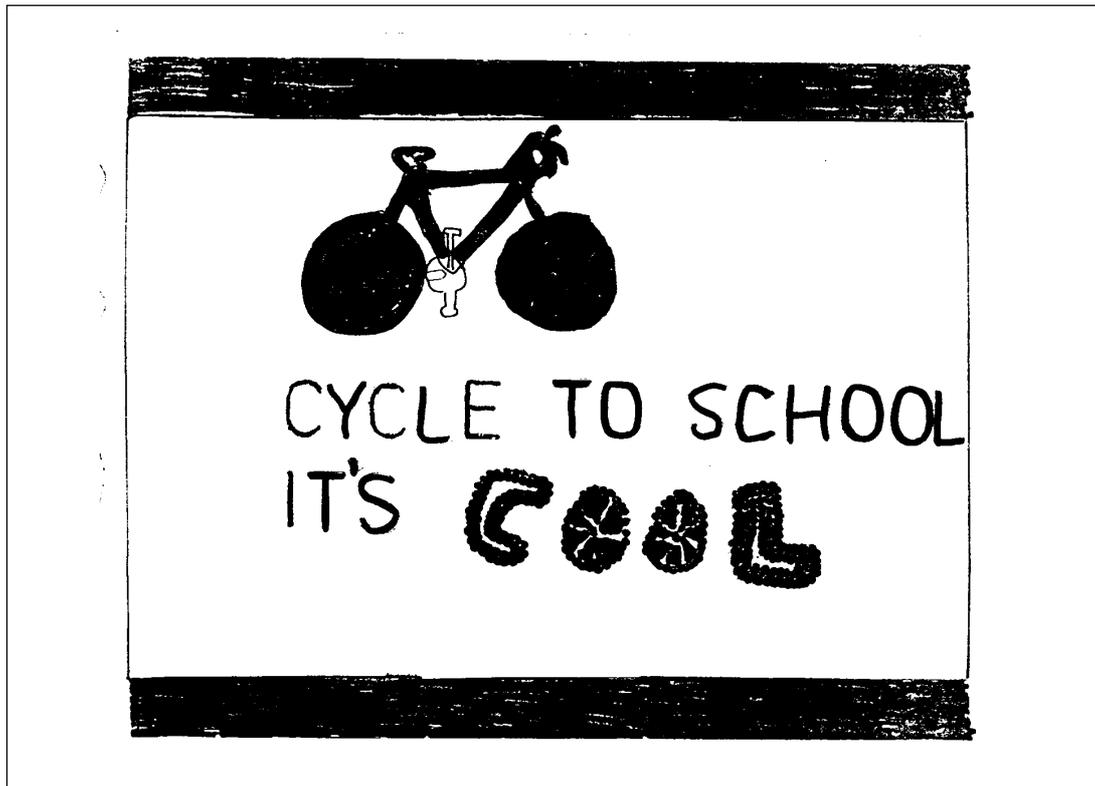


Figure A5 Highly commended, Year 7, Myton School

Appendix B: Training day

A researcher from TRL visited Waltham Forest on Friday 7 November 1997 and participated in a day of cycle training involving three schools.

Morning

9.00-10.30

Cycle training at Aveling Park. 3 boys. Half the training was on road and the other half off road in Epping Forest. On road training consisted of varied cycling practice, left turns and right turns and cycling in cycle lanes. The pupils were regularly stopped and either praised on their cycling or advised on any incorrect cycling habits. As these pupils were competent cyclists they were given practice on a fairly busy roundabout, learning about giving way to the right and practising the correct position on a roundabout if turning left, right or going straight on. Off road cycling in Epping Forest had several benefits. Firstly, off road cycling was what the boys enjoyed most and therefore it kept them interested throughout the training and illustrated to them how much fun cycling can be. Secondly, it forced them to use their gears and the trainer explained that off road cycling had taught many of the children how to use their gears properly.

11.30-12.15

Personal and Social Education lesson at McEntee School taken by the trainer. Firstly, a video was shown called Bike to Basics which explained correct cycling techniques. He then promoted cycle training by telling the children about the problems of congestion and pollution. The lesson was very interactive with the pupils being asked lots of questions. He explained that road travel would get increasingly worse if car use was not restricted and that the government had begun to restrict car use already by narrowing roads and introducing speed bumps. He told them that they were now being given the opportunity to learn how to cycle safely on the roads. Names were taken down of those who were interested (about 13 out of 19 pupils). These children will now be given a letter which their parents will sign and return. Three hour-long cycle lessons will then be arranged which will take place during any timetabled lesson.

Afternoon

Similar on-road cycle training session at McEntee School, followed by after-school club at Walthamstow School for Girls.

Abstract

The Transport Research Laboratory has monitored two Cycle Challenge schemes designed to encourage the use of bicycles for journeys to and from school. The scheme in Warwick involved the installation of bicycle parking stands at three schools and the introduction of cycle permits. In the London Borough of Waltham Forest cycle stands were installed at 12 schools, Bike to School Packs were distributed and a cycle training programme was initiated. Both schemes aimed to raise cycling awareness and to make it easier and safer to use a bicycle for school journeys.

The monitoring exercise has included questionnaire surveys and discussion groups carried out at two schools, one in Warwick and one in Waltham Forest. Local authority representatives, teachers and trainers have also been interviewed.

The study has examined the various elements of each scheme and found that some have proved more workable than others. Basic requirements of a successful scheme appear to be a considerable amount of hard work on the part of the adults involved, and the ability to persuade youngsters that cycling is a 'fun' activity.

Related publications

- TRL266 *Attitudes to cycling: a qualitative study and conceptual framework* by D G Davies, M E Halliday, M Mayes and R L Pocock. 1997 (price £20, code E)
- TRL156 *Cycle helmet wearing in Great Britain* by S B Taylor and M E Halliday. 1996 (price £20, code E)
- RR14 *Attitudes to cycling* by D Finch and J M Morgan. 1985 (price £10, Code AA)
- CT2.1 *Cycling safety update (1993-1996) (Current Topics in Transport: abstracts selected from TRL Library's database)* (price £15)

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