Road safety education: good practice in Hertfordshire

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TRL Report 148

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EXECUTIVE SUMMARY

Background

Hertfordshire is a mixture of rural villages and urban conurbations with hi-tech industrial and business developments. This gives rise to a complex pattern of inter-urban movements and encourages the use of the private car.

At the time of the project Hertfordshire had approximately 75,000 pupils between the ages of 5 and 11 years and 60,000 aged 11-18 years. In December 1988 the county was organized into seven educational divisions, although over the period of the experiment the number has been reduced to four. Initially two of the initial seven were selected - St. Albans and Dacorum. These districts contain 110 primary and 21 secondary schools.

Initial steps

A secondary teacher was appointed to co-ordinate the project while working within the Road Safety Unit. At the start of the project his line management was in the Education Department but after 18 months he transferred to the Road Safety Unit as a Road Safety Officer.

A steering group was established and plans based on the 5-16 Good Practice Guideline model were produced. The Head of the Road Safety Unit met the head teachers of all the schools in the pilot areas to describe and introduce the principles of the project. The Divisional Educational Officer informed the schools that they were part of the project with no opting out clause, thus demonstrating the support of the Education Department.

At the time, the only completed National Curriculum documents that were available were for Science and English, and as primary teachers were particularly concerned about science, the first INSET for road safety education (RSE) was based around this subject.

The experience gained enabled the project coordinator to compose the Hertfordshire document "Investigating Road Safety" - Guidelines for Primary Teachers. This states the different ways in which road safety may be organised in primary school.

Using the experience of the initial INSET the coordinator worked with the Road Safety Officers (RSOs) to produce the aims and objectives for the project in Hertfordshire.

Various important strategies were developed by the Project Coordinator in order to:

- provide INSET for staff in all schools in the pilot areas
- establish road safety education within the curriculum
- increase the use of all road safety resources, including the teams of road safety officers
- raise awareness of both the importance and the breadth of road safety and road safety education within schools and the local education authority
- develop the inter-agency work with the police, health authority and engineers in terms of road safety education
- raise the awareness of the Local Education Authority Advisory Service
- link to national bodies such as the British Institute of Transport Education Research (BITER), the Institute of Road Safety Officers (IRSO) and the County Road Safety Officers' Association (CRSOA).

Interaction with agencies

Raising the awareness of the LEA Advisory Service was considered to be of prime importance and was managed in a variety of ways. There were presentations on road safety education to the primary support team to inform them of the aims and objectives of the project. The Snap Theatre production for secondary schools (discussed below) involved liaison and participation by secondary advisers.

These initial contacts led to development work by the Project Coordinator and the education advisory service with primary and secondary teams in Science, Mathematics and Technology. Subsequently a training course for RSOs included working with the Drugs Coordinator, Personal and Social Education (PSE) Adviser, Political Education adviser and attendance at the LEA Advisory Service central training.

The Project Coordinator had good contacts with the police from previous work. Due to the increasing work of school liaison officers the Project Coordinator contributed to a police training week to ensure schools and police were up to date with current practice. Liaison took place with the Road Safety Unit to avoid duplication of work, to ensure that the methodologies used by the education service, RSOs and police were consistent, and to raise awareness of the resources available from the Road Safety Office.

Implications for Road Safety Officers

Throughout the project, all RSOs were actively encouraged to participate in the development of the INSET programme in order that a sense of 'ownership' could be established for the future. Although the initial INSET programme was devised by the Project Coordinator, it was important that all RSOs in the county should have the skills necessary to extend the programme throughout the whole county. The Project Coordinator therefore planned a series of internal staff training modules.

Primary schools

The project consisted of three phases: Phase I - Plan and Research in 1989, Phase II - School-based and support INSET in 1990, Phase III - Implementation in Schools in 1991, although it was anticipated that some of the phases would overlap. Phase I consisted of the early workshops, the creation of the format for primary INSET, the necessary support network and RSO training courses. All the Phase II INSET was done by the Project Coordinator, accompanied by an RSO, and followed a consistent format.

Phase III which was Implementation involved giving each participating school a planning sheet which offered them a choice of a variety of support elements. School-based INSET featured prominently along with a combination of RSO/Project Coordinator support.

Draft guidelines for primary school teachers entitled 'Investigating Road Safety' had been prepared by the Project Coordinator and proved useful as an ideas springboard for topic and other work. Since their initial composition an evaluation section has been added.

Secondary schools

At the start of the project RSE in the secondary sector was included in PSE, under topics such as alcohol and driving or through talks to pupils by the police and RSOs. The Project Coordinator sought an initiative to show teaching staff, head teachers and the advisory service how RSE could be incorporated into the curriculum and allowed for in the school timetable. Having had previous good experience of the effectiveness of live theatre in education, the Project Coordinator chose to pursue this medium in secondary schools using the Snap Theatre Company.

The Project Coordinator and Snap Theatre director met to develop a draft proposal for the three year project, which was subsequently agreed by the Head of the Road Safety Unit. The production was designed to concentrate on risk management, attitudes and behaviour as exemplified and affected by peer group pressure, self-esteem, valuing others and decision-making. The story described the effect of a fatal cycle accident on all those involved - parents, friends, relatives and police. This was expected to provide a road safety focus for secondary schools around which curriculum work could evolve.

The whole theatre exercise was conceived with three stages - preparation, the theatre tour and the follow-up work, which would include a finale. The preparation consisted of several liaison meetings involving key personnel and students from the participating schools, a training day, a student workshop, and a two week residency by the Theatre company at one of the schools. Each participating school, following the timetable arranged by the school coordinator, conducted a one day programme in which the play was the central element. The careful planning and enthusiasm of the coordinator meant that the tour was well received by the schools and there was a great variety of follow-up activity across the whole of the secondary school curriculum.

The finale was organised on 31 March/1 April 1992 and served as a focus for the range of work produced by the schools. Two public presentations were organised, which recreated the performance by the theatre company, and included a brief demonstration of the workshop practice. This enabled other teaching staff, governing bodies, pupils, representatives of the Education and Transportation Departments and their Directors, and other interested agencies, including various road safety units, to experience the programme first hand and to see the excellent exhibitions of work produced by many of the schools.

Links forged during the project

Advisory service

In conjunction with the County Advisory Service the Project Coordinator helped to produce RSE elements for Herts CC Guidelines on PSE/Health Education, Herts Integrated Science Project and a video produced by the Technology Advisory Team.

Safety engineers

The Project Coordinator liaised with one of the teams of safety engineers, which was involved with the implementation of urban safety schemes, to develop links with schools which were sited in areas where traffic calming measures were taking place. Key subject areas were identified, around which the schools could develop curriculum materials.

Other organisations and agencies

The Project Coordinator gave a presentation to the Small Schools Heads Association. A major input was given to 5th form pupils attending a one day pre-driver course during an induction week. The Project Coordinator, managers of the British School of Motoring (BSM) and two RSOs formed a working party to write the package.

School policies

In the original Transport Research Laboratory Guidelines, a great deal of emphasis had been placed on the early creation of road safety policies in each school. Experience showed however that they were best developed by the

school after they had decided their approach to road safety education. With the support of the Royal Society for the Prevention of Accidents (RoSPA) Governors' checklist, the Project Coordinator has helped schools to produce such policies.

Following this work with schools, the coordinator has prepared primary and secondary draft policy statements which schools can use to develop their own policy statements. The drafts included:

- areas of road safety education
- objectives for each key stage
- philosophy for road safety education
- possible organisational models
- example statements for community links
- National Curriculum Council (NCC) references
- LEA references
- Road Safety Unit references.

Conclusions

The project has shown that road safety education can provide a real and very relevant context for the delivery of the National Curriculum. To be effective pupils should receive small, but frequent, regular and purposeful inputs. To achieve this, an imaginative lead is required, but one which also reflects an air of realism, sensitivity and awareness to current pressures within the primary and secondary schools.

Consideration, therefore, needs to be given to the following conclusions and recommendations:

- School-based INSET is by far the most effective way of promoting good practice in road safety education.
- It is vital for RSOs to liaise with the major organisations providing advisory services to the schools.
- Road safety officers should take the lead in developing and maintaining liaison with other support agencies, such as the Police, Health Promotion Officers etc.
- Evaluation and record keeping of all work undertaken should be a priority for both education coordinators (for evaluation in schools) and the road safety department.
- A commitment to staff training, which keeps pace with current educational changes is essential.
- There are shortcomings in the original "linear" TRL model of road safety education provision: local authorities need to adopt a more diverse model.
- Teachers and RSOs need to be aware of the fact that needs and opportunities are constantly arising for the further development and updating of road safety education.

Most important of all, the success of the project in Hertfordshire depended on the commitment and co-operation of all the people involved: similar results can only be obtained elsewhere if this cooperation is valued and pursued.

ROAD SAFETY EDUCATION: GOOD PRACTICE IN HERTFORDSHIRE

ABSTRACT

Hertfordshire County Council has worked with TRL to develop and extend road safety education in schools within the county. The aim of the project was to raise awareness of both the importance and the breadth of road safety and road safety education within schools and the local education authority, and so establish road safety education within the curriculum. The project has included inter-agency work with the police, health authority and engineers and also links to national bodies. It has led to the development of the Hertfordshire guidelines for teachers and has greatly extended the scope of the Road Safety Unit's work with schools.

The project has shown that road safety education can provide a real and very relevant context for the delivery of the National Curriculum. To be effective pupils should receive small, but frequent, regular and purposeful inputs. To achieve this, an imaginative lead is required, but one which also reflects an air of realism, sensitivity and awareness to current pressures within the primary and secondary schools.

The success of the project in Hertfordshire depended on the commitment and cooperation of all the people involved: similar results can only be obtained elsewhere if this cooperation is valued and pursued.

1. SETTING THE SCENE

1.1 HERTFORDSHIRE

Hertfordshire, a county with a population of just under a million, is part of the Eastern Region of the country. Essex adjoins the eastern border, Bedfordshire the northern, Buckinghamshire the western and beyond the protective band of green belt on the southern border lies the suburban sprawl of London. This proximity to the northern border of London means that the county forms an important traffic corridor between the capital and much of Britain. Four major north-south trunk roads - M1, M11, A1(M) and A10 - fan out across the county, linked by the M25 London orbital route which snakes across Hertfordshire on an east west basis. These are some of the busiest roads in the country carrying large volumes of traffic, and this high level of trunk road traffic leads to spill-over effects onto already heavily used county roads.

The county itself is a pleasant mixture of rural villages surrounded by arable farmland and large urban conurbations with high-tech industrial and business developments. This gives rise to a complex pattern of inter-urban movements, particularly during peak periods, and encourages the use of the private car as a means of transport. There is a high level of car ownership, almost one car for every two people, which also reflects the affluence of the county.

At the time of the project Hertfordshire had approximately 75,000 pupils between the ages of 5 and 11 years and 60,000 aged 11-18 years. Some of the schools they attended were rural, and some were in town centres. When the project started in 1988 the county was organized into seven educational divisions, although over the period of the experiment the number has been reduced to four.

In 1988 it was decided that only two of these divisions - those of St. Albans and Dacorum should be involved. The City and District of St. Albans includes Harpenden and Wheathampstead, but the main centre is the historic city which dates back to Roman times. It was originally one of the biggest and most important towns in England. The street pattern has remained largely unchanged for many years and consequently the city centre and the radial roads approaching the city carry heavy volumes of traffic for most of the day. So far, the city has not undergone any spectacular industrialisation, nor any excessive twentieth century modernisation of its centre. The suburbs have grown steadily and the population now reaches 77,000.

The Dacorum Borough covers a much larger area, its boundaries fanning out to the borders with Buckinghamshire and Bedfordshire. The largest conurbation is Hemel Hempstead, but the Borough administers the small county towns of Berkhamsted, Tring with its associated villages of Wigginton, Aldbury and Long Marston, and Kings Langley which lies in close proximity to Watford which in turn is the largest conurbation in Hertfordshire. Hemel Hempstead itself has a population of some 80,000 people. It was designated as a new town in 1947, and the plan was approved in 1951. The old town was carefully preserved with no inappropriate new buildings, because the commercial needs of the twentieth century have been met by a new centre. The majority of the new town, its roads, car parks, open spaces, shops and other buildings were laid out and built in the 1950s with a housing density of 12-15 to the acre. A considerable amount of high-tech industrial and business development has taken place, mainly in the large industrial estate near the town centre.

At the time of the project the districts of Dacorum and St. Albans contained 110 primary and 21 secondary schools.

In 1987, the Road Safety Unit and the Hertfordshire Education Department had been planning to pilot a trial project

in one Education Division. This was designed to promote road safety education as an integral part of the school curriculum. When the Department of Transport announced that a similar experiment was to be conducted in one or two local authorities, Hertfordshire decided to approach the Transport Research Laboratory to see whether its proposal would be appropriate for the project. The County hoped to benefit from the evaluation exercise which would be incorporated into the Transport Research Laboratory project. In December 1988, the county received a formal invitation to participate from the Transport Research Laboratory.

The Head of the Road Safety Unit met the Senior Secondary Adviser to determine which of the Education Divisions should be involved in the project, the structure needed to make it effective in the county, and the level of support to be given by the Education Department. A secondary teacher was appointed to co-ordinate the project; he was to work within the Road Safety Unit, but have a line manager in the Education Department. He was supported by salary funding from the Transport Research Laboratory, and resource funding from the Highways Department. Halfway through the project period of three years, the Project Coordinator was appointed to the Road Safety Unit establishment, and the funding was then shared between the Transport Research Laboratory and the Highways Department.

At this time the Road Safety Unit consisted of four teams of Road Safety Officers, each with a team leader, and each being responsible for a geographical area of the county (see figure 1). The organisation and staffing of the Road Safety Unit is shown in figure 2.

1.2 THE BEGINNING

Prior to the actual appointment of the Project Coordinator the Road Safety Unit together with the LEA, had made certain initial plans in order to avoid unnecessary delay in starting on the project work. These were based on a model presented in the Road Safety Education 5-16 Good Practice Guidelines in the context of the National Curriculum produced by the Transport and Road Research Working Party in 1989 (see figure 3).

A steering group was established with representatives of some of the bodies named in the Good Practice Guidelines. The Head of the Road Safety Unit met the head teachers of all the schools in the pilot areas of Dacorum and St. Albans to describe and introduce the principles of the project, although at that stage there were no clear plans concerning the nature of the implementation of the work to be undertaken. The Divisional Educational Officer informed the schools that they were part of the project with no opting out clause, thus demonstrating the support of the Education Department. Some road safety education resources were displayed, and schools were told that these would be available.

On the basis of this, and the working party guidelines centralised courses and information displays were planned

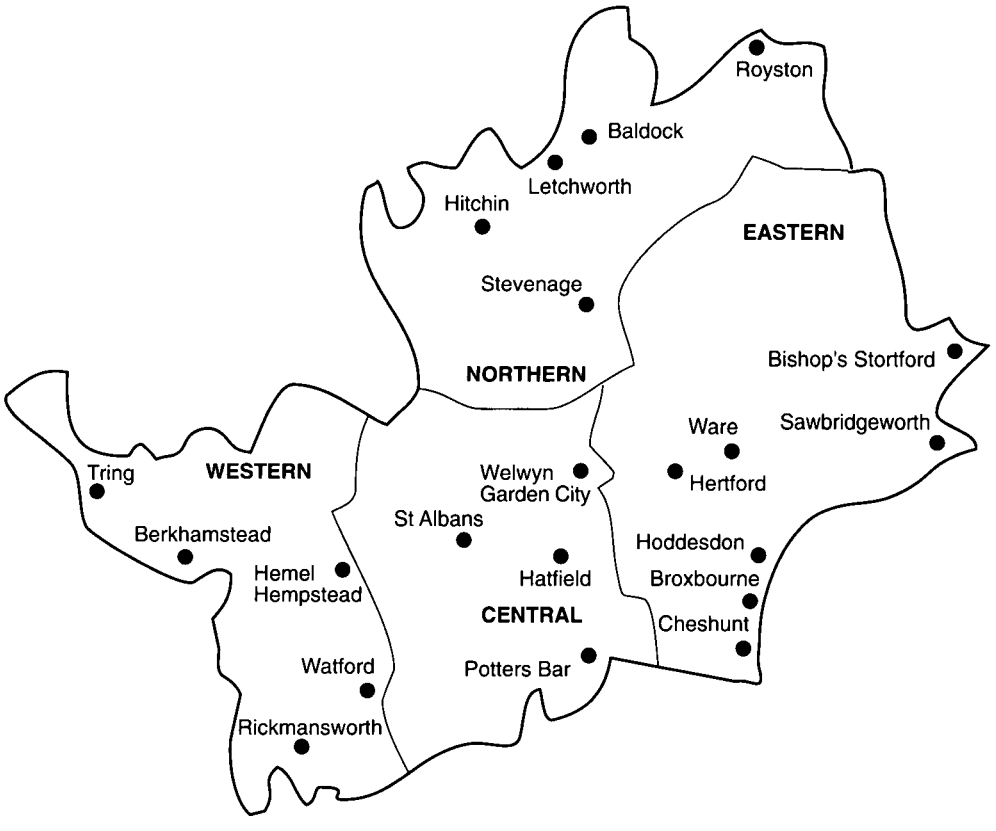
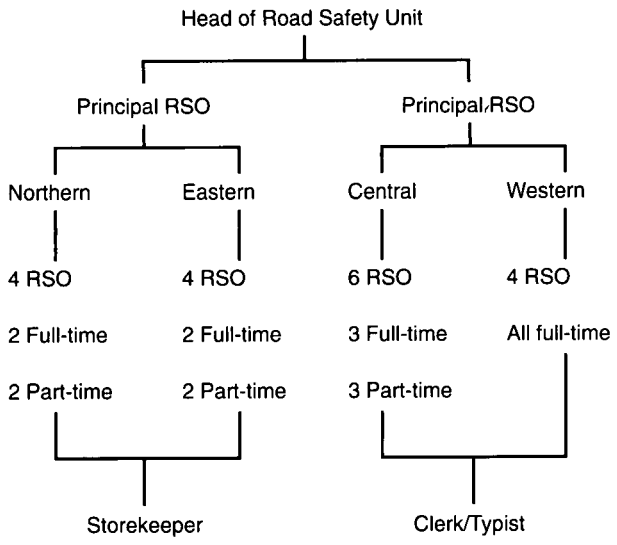


Fig 1 Road safety areas in 1989



Two principal officers provided management support, working through four Divisional RSOs. Two of those were situated in the Western Division at Redbourn and the other two in the Eastern Division at Hertford.

Fig 2 Organisation of the Road Safety Team in 1989

for the primary phase. At the time, the only completed National Curriculum documents that were available were for science and English, and as primary teachers were particularly concerned about teaching science, the first INSET was based on this subject area. Copies of the course details which were included in the Teachers' Centre publications are shown on Box 1.

These courses were held in the teachers' centres in the pilot areas, from September to November in 1989, with displays of resource materials being available during October and November. Their subject was Road Safety Education in the Science Curriculum for Key Stage 1 and Key Stage 2, using 'Go with Science' RoSPA (Northumberland County Council) as a basis for the work.

The newly appointed Project Coordinator was committed to this work, planned before his arrival, and had only two weeks to prepare the displays, which involved collating current road safety education materials and displaying these, together with the interactive video. The first workshop took place two weeks after he took up his appointment and was held in two twilight sessions from 4.30 pm - 6 pm. During the first session the participants worked through different workshop activities, all science related. The second session, which was held one month later, after teachers had been able to plan related work with their pupils, provided the opportunity for comparison of ideas, and a display and discussion of the work undertaken with the children.

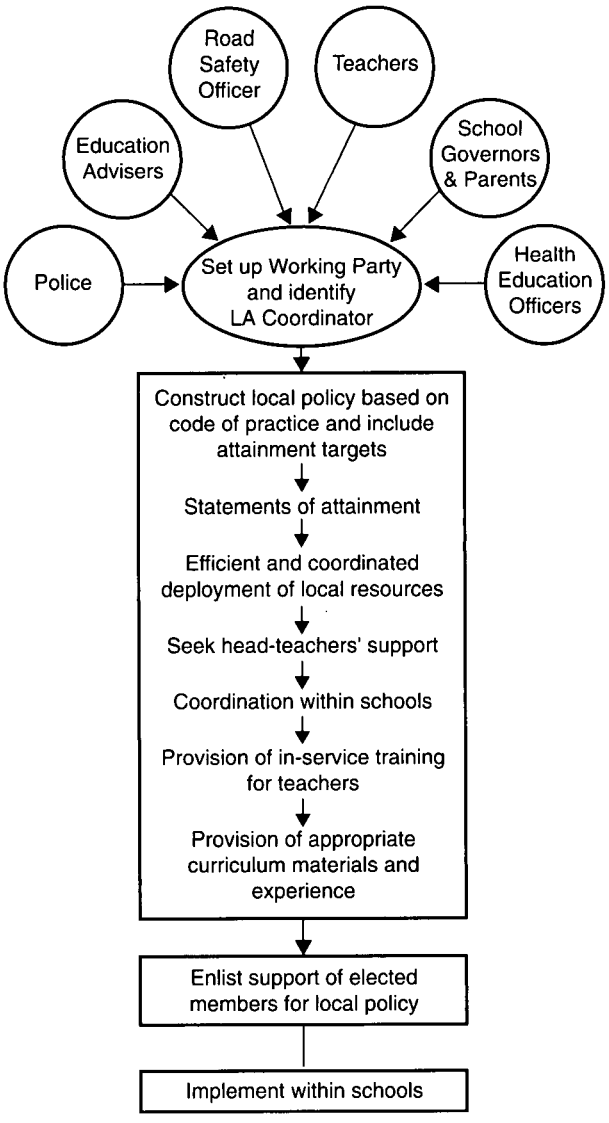


Fig 3 Suggested organisation of road safety education, TRRL 1989

This experience exposed the disadvantages of this INSET model:

a. the Cascade model for transmitting information presents difficulties in primary schools because teachers have limited non-contact time;

b. road safety education extends far beyond one core subject and should not be linked only with science;

c. attendance at the courses was patchy - for example, 15 were present at one session, only four at another, and one second phase workshop had to be cancelled for lack of support;

BOX 1

Text of advertisements for INSET

INFANT SCIENCE WORKSHOP

An opportunity to develop Infant Science using Road Safety materials. Hertfordshire has been invited into the pilot stage of a National Road Safety Project designed to promote and integrate road safety education into the school curriculum.

In this practical workshop infant teachers will examine and use new road safety resource materials designed to meet National Curriculum attainment targets in science. Attainment Targets 3, 9, 10, 11 and 15: senses, weather, forces, electricity and colour will be considered. Teachers can take away these materials for classroom use.

In the second session, teachers will be able to share classroom experience and discuss the effectiveness of the materials.

Participants will be expected to attend both sessions.

JUNIOR SCIENCE WORKSHOP

An opportunity to develop science in the junior classroom using Road Safety materials.

Hertfordshire has been invited into the pilot stage of a National Road Safety Project designed to promote and integrate road safety education into the school curriculum.

In this first workshop session junior teachers will experiment with new road safety resource materials. The materials are designed to meet National Curriculum Attainment Target 10 (Forces and Movement) and 15 (Colour and Light).

In the second session teachers will share classroom experiences and evaluate the materials. Participants will be expected to attend both sessions.

On the credit side however, there were some advantages:

a. opportunities were created for developing the liaison between the Project Coordinator and the leaders of the Teachers' Centre;

b. the Project Coordinator gained good insight into the 'Go with Science' materials, and obtained some evidence of classroom practice not previously available to him;

c. it gave the Project Coordinator an insight into the urgent need for the production of a primary document to suggest the ways in which road safety education could be incorporated into the recognised curriculum;

d. the Project Coordinator was given classroom access, and insight into how the primary curriculum functioned in a selection of Hertfordshire schools.

The trial of centrally coordinated INSET programme and the realisation that such INSET was not feasible enabled the coordinator to identify the ways that road safety education in the primary school may be organised[1]:-

- as a specific topic or project in its own right, or central to a planned road safety event;
- as a topic or project component of safety education, health education or personal and social education;
- as a component arm of a topic web (e.g. colour, light, shapes);
- as part of a timetabled core subject (e.g. science, mathematics, technology).

1.3 THE AIM OF THE PROJECT

The aim of the research was to reduce the number of deaths and injuries on the roads amongst our young people. The Project Coordinator examined the research available on the current state of road safety education provision in British schools which showed that[2]:

- there was a lack of coherent planning in schools and colleges;

1 Hertfordshire document "Investigating Road Safety" - Guidelines for Primary Teachers

2 Singh A and Spear M, 1989. Road Safety Education in Schools and Colleges. Summary Report. TRRL Contractor Report CR133 (TRL, Crowthorne).

- the approaches used were simplistic in nature;
- there was no co-ordination across the curriculum;
- there were few in-service courses;
- road safety education was not a part of topic planning;
- it was often linked to single, isolated inputs, often from outside speakers;
- there was evidence that road safety education in schools often placed blame upon the victims;
- teachers, advisory staff and others were unaware of the nature of road safety education;
- the input of road safety education was highest within infant schools, and was lowest in secondary schools and this was the inverse to the casualty figures;
- road safety education had a bad image, and this affected its status;
- road safety officers were seen as being outsiders by teachers, and of low status;
- there was a high degree of under-use of both the human and material resources of the road safety offices;
- there was no real co-ordination of other agencies interested and involved in road safety education in schools.

On the basis of this report of the national picture and the experience of the initial INSET, the steering committee produced the following aims and objectives:

1.3.1 Aims

- to give high priority to minimising the number of accidents and injuries occurring as a result of road traffic related problems;
- that road safety education, which can help every child survive on the roads, should be an entitlement for children of all ages.

1.3.2 Objectives

- that road safety education should be an identifiable part of the educational process, as, for example:-
- an essential component of health education
- an integral part of a school's personal and social education programme
- a topic which can enhance and support present developments within the National Curriculum
- that the support agencies, (i.e. RSOs, police, health promotion) both centrally and within divisions should demonstrate liaison as a part of their stated policy and planning strategies;
- that all agencies and schools should identify co-operative work both within the classroom and as part of future INSET developments;
- that within the school context road safety education should include the local authority, governors, teachers, parents and pupils.

These aims and objectives were adopted by both the Education Subcommittee and the Highways Subcommittee and were then written into the Hertfordshire County Council Road Safety Plan. This gave the Project Coordinator and the Head of the Road Safety Unit the opportunity to develop alternative models of implementation. They considered it important to review the place and relationship of road safety education in the curriculum in the light of the changes that the newly introduced National Curriculum was bringing to schools. (An analysis of the relation between road safety education and the curriculum is given in the appendix to this report - section A.2)

Various important strategies were then developed by the Project Coordinator in order to:

- provide INSET for staff in all schools in the pilot areas
- establish road safety education within the curriculum
- increase the use of all road safety resources, including the teams of road safety officers
- raise awareness of the importance of road safety and the breadth of road safety education within schools and the local education authority
- develop the inter-agency work with the police, health authority and engineers in terms of road safety education
- raise the awareness of the Local Education Authority Advisory Service
- link with national bodies such as the British Institute of Transport Education Research (BITER), the Institute of Road Safety Officers (IRSO) and the County Road Safety Officers' Association (CRSOA).

1.4 RAISING AWARENESS IN THE LEA ADVISORY SERVICE

This was considered to be of prime importance and was effected in a variety of ways.

In the pilot area there were presentations on road safety education to the primary support team which involved informing them of the aims and objectives of the project and what it was hoped would be achieved. The Snap Theatre production for secondary schools involved liaison with, and participation by advisers involved with secondary work.

These initial contacts helped to develop a networking process between by the Project Coordinator and the advisory service to enable:

- development work with primary and secondary science teams
- development work with primary and secondary mathematics teams
- development work with primary and secondary technology teams
- liaison with the Drugs Coordinator and Personal and Social Education Adviser
- liaison with the adviser for political education
- attendance in all the LEA Advisory Service central training programmes.

For further details of this liaison work see chapter 4 of this report.

Advantages of such Liaison Work

1. The advisory staff were kept informed of project developments, made increasingly aware of its importance, and two way communication was facilitated. This encouraged part ownership when schools are targeted.

2. The Project Coordinator received information from the area primary advisory team about school development plans which reflected concern and concentration on Science and Technology. This encouraged him to focus his own in-service plans on these aspects.

3. Teachers received information about the road safety education project from a variety of sources, thus avoiding the concept that only the RSOs see this as a priority.

4. The status of road safety education and the importance of the project was increased by the support of people with high levels of responsibility within the LEA.

5. The breadth of road safety education was emphasised by the fact that information to teachers was coming from those concerned with a variety of curriculum areas.

6. The involvement of the advisory service indicated the value placed upon road safety education by the LEA.

7. The involvement of the Road Safety Unit with the advisory service facilitated links between the two agencies.

1.5 WORK WITH OTHER AGENCIES

Details are to be found in chapter 4 of this document, but it is appropriate to consider at this stage work previously done with the police. Prior to this project, the Project Coordinator, had been seconded to work with the police to produce two work packages:

a. one for primary schools to be used by neighbourhood police officers

b. one for secondary work to be used by full-time police school liaison officers who also supervise the work of the primary neighbourhood officers.

Liaison took place with the Road Safety Unit to avoid duplication of work, to ensure that terms preferred by RSOs were used, and to make the police aware of useful resource materials.

Because the number of school liaison officers is increasing the Project Coordinator contributes an input to the training week held by the police for new school liaison officers, and refresher courses for neighbourhood officers. This consists of examples of road safety work within schools in order that the police are kept up-to-date with current practice.

1.6 DEVELOPMENT

The original model for developing and implementing a road safety education policy within a Local Authority which was included in the document "Road Safety Education 5-16 Good Practice Guidelines in the Context of the National Curriculum" produced in 1989 by a working party formed by the Transport and Road Research Laboratory was shown in figure 3. These original guidelines for the project implied the need for three phases -INSET in 1989, Implementation in 1990 and Evaluation in 1991. However because of the considerations of the National Curriculum, the problems of cascading information into primary schools by way of a named coordinator, and the irregular attendance at centre based INSET it was decided to change this concept to Phase I - Plan and Research in 1989, Phase II - School-based and support INSET in 1990, Phase III - Implementation in Schools in 1991, although, naturally, it was anticipated that some of the phases would overlap.

Evaluation was ongoing and was conducted externally by the University of Reading and internally by Hertfordshire Education Department Adviser for evaluation

These changes produced a different model for developing and implementing a road safety education policy within a Local Authority, and what resulted is summarised in figure 4.

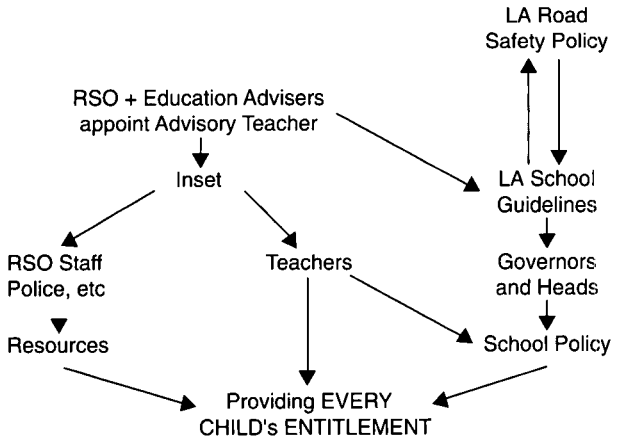


Fig 4 What really happened

2. DEVELOPMENT

2.1 PRIMARY DEVELOPMENT

Phase I of the development operated from September 1989 to May 1990 and consisted of the early workshops, the creation of the format for primary INSET, and the necessary support network which involved increasing the awareness of the advisory service concerning road safety education. Appropriate RSO training courses were also held and reference to these is made in chapter 3 of this report. In April 1990 Phase I began with a letter, countersigned by both the County Education Officer and the County Surveyor, which was sent to all the primary schools in the Dacorum and St. Albans Division. This reminded them of the project, set out its three phase structure, and asked if arrangements could be made for 1-1.5 hours to be available for a staff briefing session. The initial response from the schools to this letter was 70% from St. Albans, and 50% from Dacorum. In order to increase this response the Primary Advisory Team for the county was briefed and their help was enlisted. Divisional RSOs were also briefed to remind schools of Phase I. As a result, the figures rose to 98% from St. Albans and 95% from Dacorum. Progression into Phase II, which took place between June 1990 and March 1991 followed the responses to these letters.

All the subsequent INSET was conducted by the Project Coordinator, accompanied by an RSO, and followed a consistent format. Proceedings commenced with an introduction to the project, the reasons for its existence and the proposed plan of action for Hertfordshire. This was followed by a 'brainstorming' session designed to elicit the perceptions of the teachers present concerning road safety education issues. In every case, these were mainly confined to the Green Cross Code, Tufty Club, and Cycling Proficiency.

Key facts, which had been extracted from national and local accident statistics for children, and any such which appertained to the particular school and/or its locality were then presented and ways of addressing the problem were introduced. These were summarised under the following:-

- Engineering
- Enforcement
- Education
- Encouragement
- Enabling.

Drawing on the experience gained from the initial centralised workshops, the Project Coordinator suggested possible approaches to road safety education which could be adopted by the school. These were:-

- Specific topic
- Health Education or Personal and Social Education
- 'Arm' of a topic web
- Core subject.

Each approach was illustrated by examples of classroom practice. Staff were given time to consider the resource materials 'Go with Science' and 'Streets Ahead' and their possible use in the classroom. A second brainstorming session followed to demonstrate links with the National Curriculum terminology and road safety education e.g. science - reflection, light, sound. This highlighted fairly substantial areas of National Curriculum which had strong links with road safety education. At the end staff were given further time to consider the resource materials and their possible use in the school.

Particularly appreciated were the draft guidelines for primary teachers, entitled "Investigating Road Safety" which had been prepared by the Project Coordinator following the initial workshops and in-house training developments with Road Safety Officers. These were distributed at the close of the session. Initially these were not described as 'draft' guidelines in order that teachers should not feel compelled to put them to one side and wait for the final version.

The guidelines contained a series of objectives for Key Stages 1 and 2, covering content and suggested classroom activities; examples of how road safety tasks can support the Science, Mathematics, English and Technology attainment targets; topic webs which indicate how road safety

education can support topic themes; possibilities for cross-curricular road safety education; subject based links with road safety education, and a working example. The document proved to be invaluable as an 'ideas' springboard.

After each briefing session, evaluation sheets, prepared by the Project Coordinator, were given to the head teacher with a request that two staff should complete them. Some of their comments are given below:

At the completion of the briefing session each school was given a planning sheet to help them to move into Phase III which was implementation. This planning sheet offered a variety of support elements:-

- provision of more INSET either school based or teacher centre based
- organised via named school coordinator
- support from RSO/Project Coordinator in curriculum planning
- talk from RSO as part of the project
- RSO support in developing road safety topic
- provision of a school-based staff workshop
- other ideas or needs the staff themselves identified.

Several schools registered a wish for a combination of the above. However, school-based INSET featured prominently along with a combination of RSO/Project Coordinator support.

A desire to increase RSO involvement in planning was also very evident. This indicated a good response to the school-focused INSET with an encouraging acknowledgement concerning its relevance to curriculum development as a whole. Indeed one third of the schools involved in Phase II requested school based workshops, and this necessitated an extension of the time allocated to provide a finishing date of December 1991 rather than the end of the summer term in July.

RSOs were actively involved in these two phases, having work shadowed the initial briefing sessions before actually running the final third of the school-based INSETs. They also shadowed the workshop sessions, with a view to a subsequent training week to enable them to take over similar sessions in other schools. For this reason the workshops followed an agreed format with which RSOs felt confident and which would ensure a consistent standard and quality across all schools.

The Phase III road safety workshop was set up in a large area in the school, usually the dining room where there was a ready supply of both tables and chairs. Prior to the commencement of the workshop a variety of activities

Category of Response to Road Safety Education	**Teachers' Comments**
a. Extension of class-work	- Can be incorporated into topics/themes. - refreshing new practical ideas - links with science and technology
b. Relevance	- can apply to all areas of the curriculum - need not be taught as a separate subject
c. Primary Guidelines	- contains suggestions and activities for use in the classroom - cross-curricular ideas - increased awareness of breadth of RSE.
d. Materials	- practical examples and useful ideas - motivation for staff
e. Heightening Awareness	- relevant and illuminating. It gave me a different interpretation of RSE - helped us to identify RSE in our present school curriculum
f. Professional Development	- the point was made that RSE can be part of almost any topic, and indeed should be if we are to improve the chances of our pupils avoiding serious injury. - all staff felt they gained a lot from the INSET and it gave them extra ideas and impetus to areas they already covered (Head Teachers).

selected from 'Streets Ahead' and 'Go with Science' and 'Trafford Cycle Pack' materials were set out. They included those concerned with friction, stopping distances, vision using both eyes and then one eye in turn, conspicuity, road safety board games, routes to school mapping exercise, electrical circuits illustrated by traffic lights, an upturned cycle with suggested work on gears, and a tape with various identifiable street noises. Each activity had a descriptive work card clearly marked to indicate whether it was selected from 'Streets Ahead', the 'Trafford Cycle Pack' or 'Go with Science' so that staff could refer to the original source.

Following a brief introduction to the various activities the teachers were given an evaluation sheet prepared by the Project Coordinator. They were then given a free choice of activity to pursue in pairs, groups or individually as they wished. Very useful discussion took place over each activity concerning its suitability for different classes and ways of modifying it if necessary. The completed evaluation sheets clearly revealed the appreciation of the teachers for many aspects of the workshop:-

- the opportunity for 'hands-on' experience - *seeing* the actual materials, and *using* them made it all seem more possible to *do*
- good to see practical, usable ideas e.g. reflective box and working examples give more instances of how to use ideas in a classroom situation.
- the opportunity to try out ideas on the card before the class situation and relate them to topic work is very welcome
- models which could give CDT experience were helpful
- workshop provided an overview of the potential for fitting road safety ideas into a project for the term covering all aspects of the curriculum
- cross-curricular aspects were presented
- the realisation that what we take for granted, a child cannot.

Schools were also asked what, if any, further support was required and in some cases the requested support consisted of parents evening and governor training.

Unquestionably the Project Coordinator and the RSOs have evolved a model which suits the participants, is progressive, can easily be adapted to suit the needs of an individual school, permits access to ways in which governors and parents can be targeted, gives the maximum support to schools in the time which is available, is evaluated by those who actually participate in the briefing sessions and workshops, and encourages schools to think of the place of road safety education within their school policies.

The model also provided a training base for RSOs as they became increasingly involved in planning and documenting good practice in the schools using their own in-house framework. They were in receipt of a training programme which ran parallel to the workshops and were encouraged to evaluate the sessions themselves and feed the information back to the Project Coordinator. This helped him to assess the training needs of the RSOs.

Since their initial development, a fourth section has been added to the primary guidelines document, and this is currently being tested. It contains a series of tasks which can be used by teachers, RSOs and parents to evaluate the progress of individual pupils within the stated road safety education objectives.

2.2 SECONDARY DEVELOPMENT

At the start of the project current programmes for road safety education in the secondary sector consisted of modules in the personal and social education curriculum for each year group. Examples included alcohol and driving; courses on child care; police and RSOs talking to year groups with some input into specialist areas; and driver education. The RSOs would supply a variety of resources to schools when requested.

The Project Coordinator felt it was necessary to seek an initiative which would have an even wider impact in the schools, provide access to timetable time and involve a variety of staff, the head teachers and the advisory service. It would demonstrate how road safety education could be incorporated into the curriculum. Such an initiative would also be valuable in developing secondary school guidelines for road safety education. With the Road Safety Unit having had previous good experience of the effectiveness of live theatre in road safety education, it was decided to pursue a new drama development at secondary level for the project.

A number of 'Theatre in Education' groups were contacted and eventually Snap Theatre, a Hertfordshire based company, which had local expertise and school-based contacts, was selected. The Project Coordinator and Snap Theatre director developed a draft proposal for a three year project which was agreed by the Head of the Road Safety Unit. The draft was also discussed at the October 1990 meeting of the Steering Group.

Following acceptance of the proposal further discussions took place to determine the messages that the production should convey. Possibilities included:

- *Attitudes and Behaviour* which cause most of the incidents which result in injury or death. Education

tries to influence attitudes which may lead to a change in behaviour, and promote behaviour which may result in a change in attitudes.

- *Self-Esteem and valuing others* because if you do not value yourself you will have no concern for keeping safe, nor will you care for the safety of others if you do not value those around you.

- *Risk Management* which lies at the heart of road safety education and involves development of the ability to identify and assess risk and strategies to avoid, remove or lower the risk.

- *Rules* which includes the personal rules we must formulate for ourselves and which shape our behaviour.

- *Engineering* because the way in which the environment is constructed can increase, lessen or remove risk.

- *The weather* because weather changes can rapidly transform a relatively safe environment into one that is extremely hazardous.

- *Vehicle Design* where safety considerations are now given greater emphasis.

- *History* which has shaped our towns and cities. Some were designed for earlier forms of transport and some give cars priority over people.

- *Politics and Economics* are the determining factors which inhibit or bring about change.

- *Valuing Safety* requires the promotion of a safety culture in which safety is understood and has a high status.

- *Public Opinion and Acceptability* which requires a partnership between the community and agencies concerned with change.

- *Decision Making* which can involve public decisions made by politicians, designers or manufacturers. It also involves personal decisions about behaviour, such as wearing a helmet or not drinking before driving.

- *Priorities* where the balance is beginning to move in favour of people and safety as demonstrated by recent legislation, vehicle design and traffic calming measures.

Although it is obviously desirable to address all these issues, it was decided to concentrate on risk management, attitudes and behaviour as exemplified and affected by peer group pressure, self-esteem and valuing others, decision-making and the effect of a fatal accident on all those involved - parents, friends, relatives and police.

It was hoped that the resulting programme would provide a road safety focus for secondary schools, around which curriculum work would evolve and a further use of departmental resources could be encouraged.

Having agreed the messages that were to be contained in the Snap Theatre programme, the Project Coordinator began the task of developing the necessary support structures in schools to ensure that the curriculum areas could be identified.

The proposal had originally been written with three stages clearly identified as shown in figure 5.

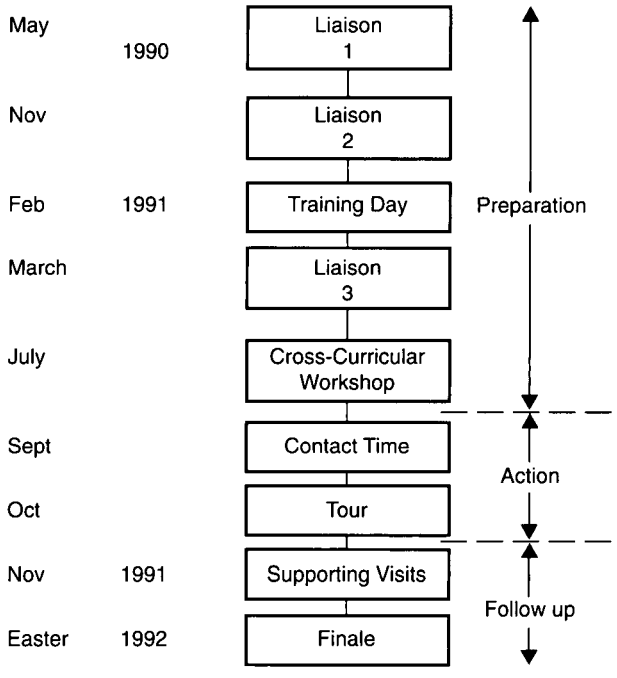


Fig 5 Snap Theatre timetable

Theatre 1 - preparation

Preparation for implementation concentrated specifically on teachers, advisers, students and other interested agencies. This enabled the Project Coordinator to create the necessary network for subsequent liaison. Over a period of two to three months the Project Coordinator, using previous contacts in the advisory service, and/or recommended contacts from senior colleagues, liaised and talked to a series of advisers in order to explain the proposal, and encourage them to give their support.

Liaison Meeting 1 was arranged for 14 May 1990 when all interested parties met to discuss the parameters of the project. The main objectives for the meeting were:-

- to introduce the group to a more realistic view of road safety education
- to discuss the theatre project in detail
- to provide a support framework for development,

Participants were asked to be prepared to comment on two questions - "What does the term 'Road Safety Education' mean to you?" and "What are your expectations of the project?"

In response to the first question, Tufty, early conditioning, Jolly Green Giant, Survival, Cycling Proficiency and Safe Places to Cross, formed the majority response and these closely resemble statements made by primary teachers during Phase II of the primary development. This suggested that an outdated narrow perception of road safety education was held by those in very influential positions within the education authority.

The responses to the second question are shown in box 2.

Those present were then asked to work in small groups and write down the causes of road accidents and their consequences. They were then asked how their specialist subjects could contribute towards accident prevention, and the results of their deliberations are shown in boxes 3, 4 and 5. It is obvious from these that participants' perceptions of road safety education had been changed.

Between May and November letters were sent to the head teachers, enclosing a copy of the plan for themselves, and a letter and copy of the plan for the contact teacher. The Project Coordinator then visited the school to discuss the programme, and subsequently a form which indicated the commitment of the school to be included in the programme was signed.

Liaison Meeting 2 held on 12 November 1990 was designed to bring together all those who attended Liaison 1 and the schools representatives in order that the programme could be developed. As with Liaison 1, the group established its own understanding of road safety education which was considerably developed by the end of the session. Initial concerns and comments about the programme were also shared such as:

- road safety programme should incorporate a whole school approach and not be seen as a 'one off'
- how can we involve other subjects
- heads of departments need to be involved at an early stage
- how can we involve parents?
- how do you cope with staff who are not interested?
- should the production be the stimulus, or the conclusion, or the central context?
- theatre could provide a framework for a 'concept' evening thereby involving parents, governors, community etc.

Plans were made for a further training day. The director assigned to the project by SNAP attended the liaison meetings to direct an input into the session, and to get an overview of road safety education, and the teachers' views of road safety education.

The Training Day was held on 28 February 1991 and was run jointly by the Theatre Group and the Road Safety Unit. The purpose was to explore possible approaches in performance terms as well as curriculum development work-

BOX 2

Expectations of INSET - teachers and advisors

GIVE	GET
- All school age children road safety information	- Less fatalities
- Support road safety education in schools	- Greater road safety awareness amongst pupils and parents
- Help to co-ordinate with other initiatives	- Support
- Opportunities to rehearse 'coping' strategies	- Information
	- Experience
	- A new perspective
	- Confidence
	- Fun
	- Time off teaching!

BOX 3

INSET groups - road accident causes

HEALTH RELATED	EMOTIONAL	EDUCATION
- alcohol	- aggressive	- lack of education
- PMT	- excited	- lack of continued education
- stress	- confused	- culture
- tiredness/fatigue	- upset	- media influences
- night blindness	- depression	- lack of knowledge
- eyesight		- lack of skills
- hay fever		- lack of life experience
- drugs		- driving skills/training
- age		- pedestrian awareness
		- lack of concept of danger
		- lack of concern
		- judging speed and distance
		- legal enforcement
ENVIRONMENTAL	**MECHANICAL**	**FAMILY SOCIAL**
- weather conditions	- poor maintenance	- peer pressure
- road works/contraflows	- mechanical fault	- anti-social behaviour
- road maintenance		- shiftwork
- road surfaces		- time management
- animals		- family pressures
		- adolescence
		- group culture
		- distractions
		- culture
DESIGN	**ATTITUDE**	
- road design	- over confidence	- inexperience
- government priorities	- impatience	- time keeping
- planning	- bravado	- thoughtlessness
- poor signs/information	- irresponsibility	- risk taking (various degrees)
	- complacency	- ignorance
	- preoccupation	
	- inattentive	
	- pride	

shops. The day began with an 'Accident Experience' by the SNAP Theatre company which presented the devastation and tragedy of a young person's death, after which group members wrote down the immediate causes and consequences of the accident. Short sketches about the lives of those involved in the accident were then presented in order that the group could assess the long term causes and consequences of the accident. Group members then prepared questions to ask the various characters from the scenes, from a specific point of view, i.e. as family, police, school etc. in order to list causes/consequences in order of which is most important/relevant to them. In the final session participants were asked what they would like to see, or not like to see, in the final production, in terms of characters, events, place, time etc. with a view to arriving at an agreed list.

During lunch time resources which could be used in connection with the project were displayed, and RSOs were available to give advice and help.

Financial support for the INSET had been achieved through liaison with the County Drugs Coordinator, who viewed the project as developing an aspect of health education, and wished to show his support.

BOX 4

INSET groups - road accident consequences

SOCIAL
- long term care
- loss of freedom
- loss of mobility
- inconvenience
- restricted access to the environment - urban
  - rural
- chaos

ECONOMIC
- cost to County
  cost to Nation
  cost to Health Authority
  cost to Emergency services
- indirect cost to
  family
  loss of income
  loss of benefit
  loss of work
- increase in national income
- cost of inconvenience
- educational costs
- loss of car/cost repairs
- legal costs
- natural/local initiatives
  (environmental changes
  remedial measures)

MEDICAL
- cost to health authority
- disablement
- complete range of injury from slight to death

EMOTIONAL
- permanent injury
- embarrassment
- guilt
- loss of family/bereavement
- loss of nerve/confidence
- shock (even as observer)
- readjustment
- stress
- need for support
- emotional pressures on others unconnected with the accident
  (third party)
  ie police officer
  teacher
  family friends
- sorrow/sense of loss
- chaos
- increased community spirit

BOX 5

Subject routes to RSE identified by the INSET groups

SCIENCE
Reaction Time
Judging Speed
Reflective materials

PSE/ENGLISH
Diary of events
Consequences
Newspaper cuttings

MATHEMATICS
Statistics
Probability
Risk Factor

BUSINESS ED/IT
Costs to society

POLICE
Scene of accident

POLITICAL EDUCATION
Pressure Group

TECHNOLOGY
Central stimulus

ART/DESIGN
Designing garments
Selling the message

Evaluations of the day were received from all participants, including the four RSOs and served as the basis for a further meeting in the following March.

Liaison Meeting 3 was held on 14 March 1991, to make final decisions concerning the performance which was to be tested, the age of the 'target' audience, possible 'format', and how this could be extended into a cross-curricular model, depending on the needs of individual schools. This would serve as the basis for the student workshop day in July 1991.

Student Workshop took place on 10 July 1991 in a secondary school. This provided an opportunity for all planning participants to observe and to work with pupils on approaches to road safety education. Most of the performance unit was tested with students from Y8/9, and after each enactment considerable discussion took place with all parties involved, working in small groups. In this way students were involved as participants, receivers, and, by their contributions to the debriefing discussions, as planners of the final programme. Some workshop practice was also developed during the day.

As a result of the deliberations during the day the three year plan was adjusted so that each school would receive a whole day of activity, and not a half day programme as originally planned. All staff would be briefed on the nature of the day and the timetable details required. The SNAP Theatre Group would give a performance and also organise a workshop with the whole year group, presenting a variety of activities in which pupils could participate. In between these would be classroom discussions on the nature and interpretation of the performance, and a short staff/Snap Theatre group meeting after school to discuss possible follow-up work.

Theatre 2 - action

Contact Time took place in September 1991 when for two weeks the Snap Theatre Company set up a residency at one of the twenty schools. This was to enable them to rehearse a performance piece in a secondary school, working on a daily basis with individual classes across the curriculum. The aims of this exercise were to use drama to show how Road Safety can enhance what is already done in the classroom and to elicit from the pupils the road safety issues which were important to them. Pupils from Y8 were invited to view and make notes of a display set up in the hall by the Theatre Group. The items seen included a child's cycle, a normal cycle upside down, a jug of imitation blood, a car number plate streaked with red and a picture of a boy playing baseball. Pupils were then asked what they saw when they looked at the display to make them realise that everything displayed indicated an accident and was part of a story. The pupils were given time to compose and write up their story of events. They then went in groups to a classroom workshop to mime the story they had written. There was also some interesting discussion on the symbolism of the items displayed in the hall and the pupils were encouraged to think beyond the immediate accident into motives, effects and consequences.

The Project Coordinator also organised an INSET of 1.5 hours duration for a group of different subject staff from the residency school to discuss, and plan possible further curriculum developments. A preview of the final Snap Theatre performance was also arranged for all the staff. This generated enormous interest and served as a useful development of the overall strategy.

TOUR - Getting the message across

On the completion of the residency, the company toured the schools for one month, with the support of the Project Coordinator and Area Road Safety Office at every performance. The actual programme entitled 'Go for It' lasted for some 35 minutes, and involved two actors and an actress who shared the roles of victim, victim's friend, victim's sister, victim's mother, victim's father and policeman. The subject was a fatal cycle accident, and the production included scenes before, during and after the accident, giving glimpses of the causes, consequences, and the effects on some of the people involved in the victim's life and death. Each school following the timetable arranged through the school coordinator, conducted a one day programme consisting of six elements, as indicated on figure 6.

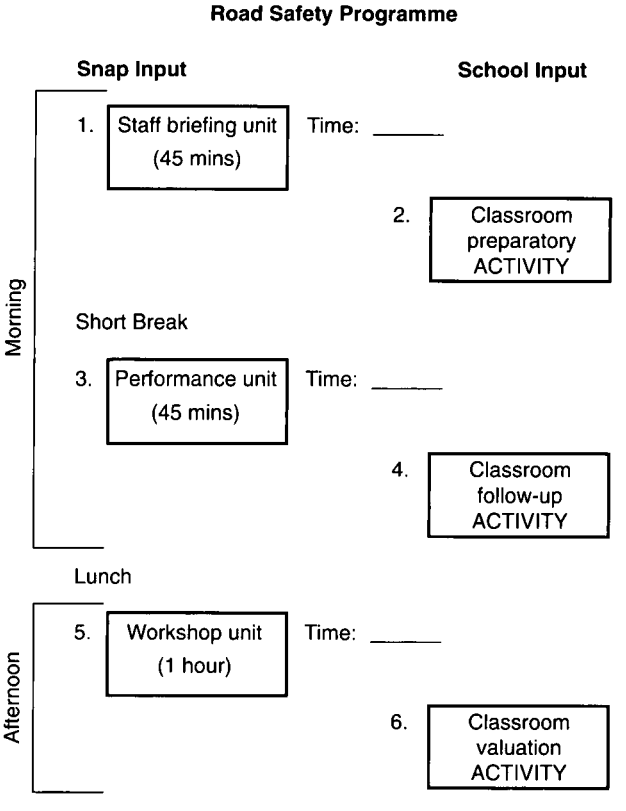


Fig 6 Snap production and school timetable

Fig 7 Scene from 'Go for it'

Certain conclusions can be drawn from the tour.

1. Co-ordination of the school's programme was heavily dependent on the effectiveness of the nominated teacher contact.

2. The follow-up work in the curriculum was very varied.

3. The programme was well received by most schools.

4. Three schools were used which were not involved in the preparation stages. On the whole their work was not as impressive as that produced from schools which were involved throughout in the preparation and planning.

Evaluation questions, prepared by the Project Coordinator, and completed by members of staff after the Snap Theatre performance and workshops produced the following replies:

- "it did make people think about their own attitude to risk taking and achieved a great deal overall"

- "the students enjoyed the day and found it extremely valuable"

- it was a very 'real' situation"

- "performance gives a greater impact than simple discussion, lectures and road safety talks that the pupils have heard many times before"

- "our original reason for getting involved was for road safety education, although we discussed as a team how this would involve peer pressure. We were very pleased that the day served as a useful starting point for both these issues".

- A subsequent letter from the Deputy Head of a school

states "I should like to thank the Project Coordinator and other members of the Road Safety Department for providing the SNAP theatre's production of 'Go for It'. Without doubt it was a great success and an imaginative approach to delivering road safety to older pupils. The feedback from the children has been very positive and has provided the stimulus for a great deal of discussion. I hope there will be an opportunity for a repetition in future years."

Theatre 3 - follow-up

FINALE. This was organised on 31 March/1 April 1992 and served as a focus for the range of work produced by the schools. Two public presentations were organised, which recreated the performance by the theatre company, and included a brief demonstration of the workshop practice. This enabled other teaching staff, governing bodies, pupils, representatives of the Education and Transportation Departments and their Directors, and other interested agencies, including various road safety units, to experience the programme first hand, and to see the excellent exhibitions of work produced by many of the schools.

The subject areas covered in the exhibition included Technology, Art, English, Music, Drama, Maths, Science and Personal and Social Education.

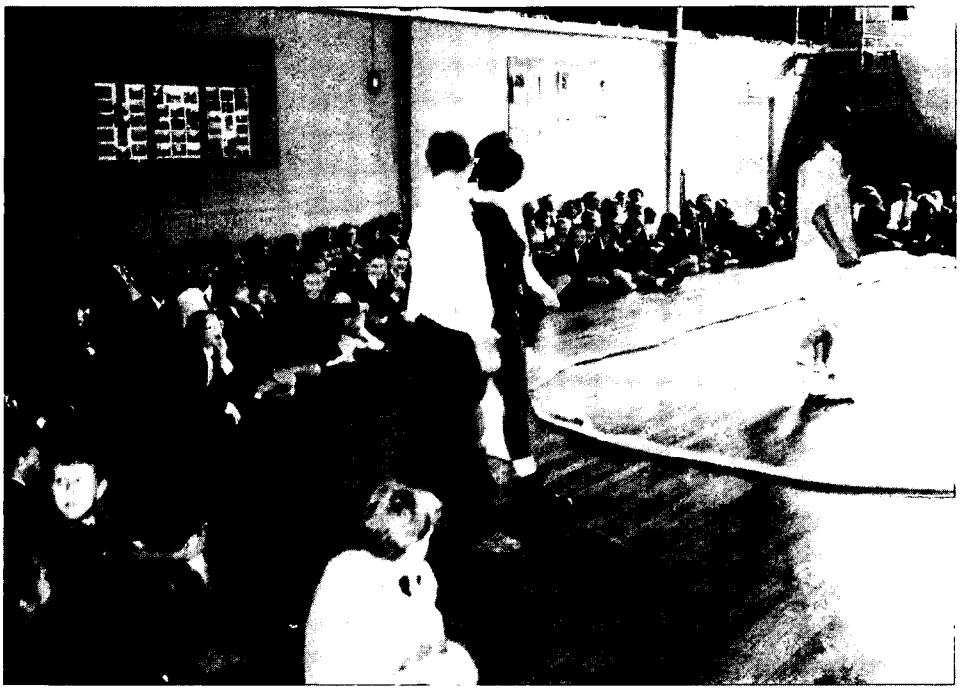


Fig 8 Theatre workshop

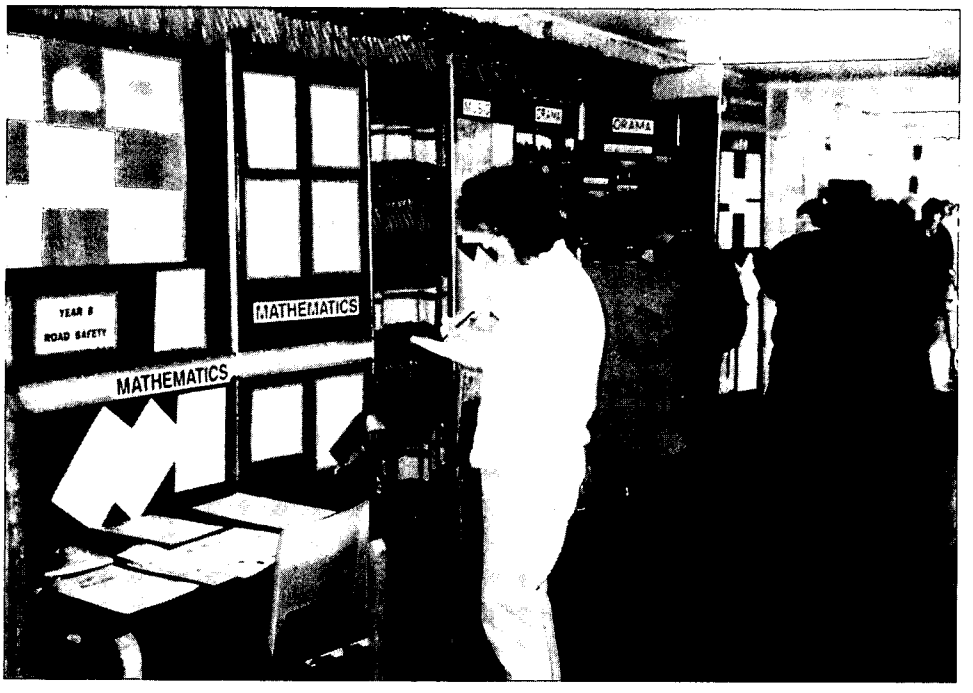


Fig 9 Exhibition at the Finale

The technology exhibits dominated the exhibition, because of their size, and possibly because of the enthusiasm of both teachers and pupils to develop and test ideas in this subject area. The displays included models of urban areas with proposed traffic-calming measures, various devices and inventions to improve road safety, an experimental signal control system, and a display of food and road safety. Particularly impressive were working models of an illuminated pole for school crossing patrols, an illuminated bicycle spacer arm, a cycle bag incorporating fluorescent and reflective panels, a replacement for the flying motorcycle road sign, and some amusing cycle helmet covers. The pupils' own assessment and evaluation of their product were very objective and mature, and pointed the way to worthwhile and practical improvements in the products.

Art was represented by numerous examples of attractive road safety posters, but the display was dominated by two large and dramatic murals, which were team efforts created in the debriefing classroom session following the Snap Theatre performance.

English revealed a wide range of work - poems, essays, draft road safety campaign materials, acrostic poster designs, radio scripts, letters to newspapers and draft questionnaires. This work clearly showed that the pupils had absorbed many of the messages within the Snap Theatre production that related to personal responsibility, care for others, and a sympathetic understanding of the function and attitudes of the police.

The Music and Drama section contained two video films. One showed a 'rap' style Green Cross Code song, and the other a play written and produced by a class, which was followed by a group discussion about safety.

Mathematics included examples of work with road safety statistics wholly concerned with the comparison of different display charts - pie, bar and line. 'Science in Progress' materials were displayed and some schools has used the draft 'Salters' science package.

This project was very carefully planned and developed by all involved parties, at all stages, including the final exhibition. The materials and proposals were first 'sold' to the advisory service and then to the participating schools. The major aim of the exhibition was to 'sell' the ideas to Education Divisions within Hertfordshire. The achievement of this aim is clearly indicated by the fact that some 180 people attended over a two day period which led to 20 schools opting for a similar programme for the autumn of 1992, and half a dozen authorities outside Hertfordshire have requested details.

Prince Michael Road Safety Award

The Prince Michael Road Safety Awards were introduced by HRH Prince Michael of Kent in 1987 to highlight and increase the need for vigilance on the roads, encourage careful behaviour and bring home the road safety message to all road users. It is very pleasing that a special award has been presented to the Snap People's Theatre Trust as a direct result of the initiative taken by the Hertfordshire Road Safety Unit as part of this national project to improve road safety education in schools.

3. STAFF TRAINING FOR RSOS

Throughout the project, all RSOs have been actively encouraged to participate in the development of the school INSET programme in order that a sense of 'ownership' could be established for the future. Although the initial INSET programme was devised by the Project Coordinator, it was important that all RSOs in the county should have the skills necessary to extend the programme throughout the whole county. The Head of the Road Safety Unit and the Project Coordinator therefore planned a series of internal staff training modules based on the developed school INSET programme and which introduced other elements for future development. Initially, a one day course to introduce the National Curriculum and Primary Science was organised on 12 March 1990. This was followed by three other courses which were held on 11-14 September 1990, 9-10 December 1991 and 2-3 November 1992.

3.1 ONE DAY COURSE 12 MARCH 1990

This was held at St. Albans Teachers' Centre and had quite specific aims.

1. To develop an understanding of Primary Science.
2. To involve RSOs in the development of the Primary Guidelines.
3. To make the RSOs feel confident with the changes in their working practices, and with the new Project Coordinator.

Following a presentation on the National Curriculum by the Project Coordinator, the RSOs were engaged in practical science workshops which included simple practical experiments at both infant and junior level which had been previously tried in the initial workshops with teachers. In the following group presentations the RSOs were required to indicate where these experiments fitted into the National Curriculum, and the road safety content of each. During their visits to Hertfordshire primary schools, the RSOs had elicited a list of common projects and themes which were undertaken. Some of these had formed the basis of developmental work with the teachers who attended the earlier workshops held in the teachers' centres. This developmental work was used as a basis for the practical work which followed on Topic Webs. Each group was asked to develop a theme such as 'On the Move' and identify and develop its road safety content and then present the result to the group for discussion and comment. They subsequently had an associated model-making workshop, followed by further discussion. Additionally the Project Coordinator talked to the group as a whole on cross-curricular links, particularly those associated with English, Mathematics and technology.

Certain conclusions were drawn:

- RSOs had some basic knowledge of the National Curriculum but this needed bringing up-to-date.
- RSOs, understandably, were wary of changing their working practices.

- RSOs were encouraged by the realisation that their own ideas for curriculum content did not differ greatly from those produced by primary teachers who worked with the Project Coordinator in the early twilight workshops.

3.2 FOUR DAY COURSE 11-14 SEPTEMBER 1990

The specific aims of this second training session were:

- to inform RSOs on the current state of the project work
- to focus specifically upon two major resources
- to introduce the group to Primary and Secondary Technology
- to give RSOs practice in planning INSET
- to provide RSOs with the opportunity of giving group presentations on their planned INSET.

The course opened with a presentation by the Project Coordinator on the results of evaluation carried out by the Authority on work which had so far taken place. Using information obtained during the March training day the group then considered the support given to the National Curriculum by two resource packages 'Streets Ahead' and the 'Trafford Cycle Pack' and the results of their deliberations were pooled and presented. The RSOs were given specific tasks which involved the development of classroom activities. These culminated in the construction of a plan for a workshop using those resource packages. This was their first experience of creating their own workshop plan, and provided the Project Coordinator with examples which were later proved in schools thus enhancing the sense of ownership for the RSOs.

On the second day, the emphasis was on technology at primary and secondary levels. The basis for the morning's work was the LEA 'Introduction to Primary Technology' pack compiled by the Hertfordshire Advisory staff for primary education. The Project Coordinator had previously worked with this team in order to familiarise himself with the pack, and had also fulfilled a support role in a school-based INSET session which explored links between primary technology and road safety education, so was able to lead the session with the group.

The afternoon was devoted to an excellent presentation by a teacher who is a Head of a Craft, Design and Technology Department and also Technology Coordinator in a secondary school, and had worked with the Project Coordinator in developing Technology within his school. He gave a very interesting insight into the development of technology in schools and produced some excellent examples of road safety education which had been developed in his department in connection with a theme on Transport; and which gave rise to considerable discussion.

As the group of RSOs were now aware of National Curriculum developments, what was encompassed in the Science and Technology curriculum and of the new resources for teaching road safety education the remaining time of the course was concentrated on INSET in schools. The aims of this strategy were:

- to look at the advantages of school based INSET
- to develop a strategy for INSET
- to prepare a structure and programme for a typical INSET session in a school staff room
- to present their session to their colleagues
- to prepare the RSOs for the enabling role.

This exercise meant that many new concepts had to be absorbed and both the Project Coordinator and Head of the Unit guided each Divisional team in the preparation and production of their INSET package. This guidance included information on planning, preparation and performance, the need to offer a clear framework for discussion, the need to consider the working environment for the INSET, how to structure feedback, and the RSOs' need to develop confidence and self-esteem. Considering that the RSOs are not qualified teachers, they had only one hour in which to prepare their INSET package and that they also had to give the presentations to their peer group, the results of this exercise were impressive in their quality.

The Project Coordinator then introduced his INSET package which was still being tested and which clearly demonstrated how similar were the ideas of the RSOs to the model on trial. This was reassuring to the RSOs, increased their confidence in their own ability to inform others, and facilitated the process of introducing changes in approach.

3.3 TWO DAY COURSE 9-10 DECEMBER 1991

By now many of the primary INSET sessions had been completed, and internal evaluation had clearly shown that the format used was proving to be effective. However there was some concern expressed about the possible effectiveness of RSOs in the Phase II (follow-up) role of the primary development programme, which would involve their active participation in workshop sessions with teaching staff.

The first day concentrated on workshop techniques and introduced all the RSOs to the process of planning and developing workshop practice. Although the model being tested by the Project Coordinator was central to the day's activities, the RSOs were given every encouragement to make suggestions for improving or changing the ideas.

These were presented to the rest of the group for consideration and discussion.

The Project Coordinator and the County Evaluator had considered all the objectives entered in the Primary Guidelines, and formulated appropriate questions for evaluating pupils' learning. The RSOs were invited to consider these evaluation tasks, work out how they would implement them with children, and try the tasks out on each other. Resulting amendments were subsequently refined by a working party of RSOs and the Project Coordinator, and will form part of a pilot programme to be carried out at the beginning of 1993.

On the second day the RSOs were introduced to a pilot programme being run by the Project Coordinator and a safety engineering team. The aim of this pilot was to introduce alternative school-based activities using real local situations - in this case traffic calming measures - as a stimulating context. A full account of this pilot programme, which is being repeated in another location in the county, appears in section 6.10.

The group were also given an insight into a specific school based support (see section 6.3), which had directly involved the Project Coordinator in topic-planning support. The material used in the exercise was directly taken from this support role, and each team was asked to develop the task further as if the request for support had been made to them. The Project Coordinator also updated the team on the current situation concerning the secondary theatre programme by means of a prepared presentation. As the team was not, at this stage, directly involved with the development of the secondary programme it was felt that information about the exercise was sufficient. However, the presentation did provide an insight into the philosophy which underlined the actual development of the programme.

3.4 TWO DAY COURSE 2-3 NOVEMBER 1992

Two complete days of this training week were jointly planned and delivered by the Project Coordinator and BITER, and were devoted to road safety education in secondary schools. The Head of the Road Safety Unit felt that there was a need to raise the confidence of the road safety officers in their ability to function within the secondary school environment and wished to devise approaches for the ongoing development of road safety education in secondary schools. It was hoped that the training sessions would fulfil the following objectives for the participants:

- they would appreciate that secondary schools are complex business organisations
- they would be able to identify the appropriate people in the schools with whom to discuss road safety education development
- they would be aware of the different approaches possible for incorporating road safety education into the secondary school curriculum
- they would be able to develop strategies for introducing themselves, and maintaining contact with the schools
- they would be able to promote themselves as an advisory and support service for road safety education to schools
- they would be able to consider appropriate methods of evaluation and monitoring
- they would have a working knowledge of the Hertfordshire guidelines for road safety education in secondary schools.

To this end the group participated in a variety of activities. In small groups, members identified what they saw as the strengths, weaknesses, opportunities and threats which faced them, both as individuals, and as a road safety unit in furthering their work with secondary schools. They then examined the various National Curriculum documents in order to seek out the road safety education element - if one were present - identify cross-curricular themes, suggest appropriate road safety activities and resources which would support them.

Road safety officers have to build effective relations with schools, which enable both parties to fulfil their respective functions, and have respect for each other. Strategies for doing so - telling - selling - negotiating - joint problem solving and facilitating were discussed at considerable length, with the relative merits of each strategy being carefully considered.

It is also important to identify the most influential members of staff and gain their support and co-operation. Some time was therefore devoted to the identification of the management structures and power bases of a secondary school so that road safety officers could better understand the routes through which various approaches should be made. Discussion also took place on the nature and content of school profiles which would be prepared and kept by the road safety unit. The consensus view of the group as a consequence of these activities was that they had certain needs in terms of working in secondary schools. These consisted of:

- access to NCC documents
- more time to work in groups to identify opportunities
- more planning and training
- time to study and identify appropriate resources
- how best to share information - e.g. should there be a package?

- need to collate information about different approaches as for the primary work

- access to examination syllabi.

The Project Coordinator distributed copies of draft guidelines for teaching road safety education in secondary schools. These do not recommend a structured course which must be worked through systematically, but do indicate the scope of road user education, the range of content for each age group and suggests ways of incorporating it into the National Curriculum. It demonstrates how road safety education can enhance and enrich work in many of the core subjects, and also provide a platform on which moral aspects of personal and social responsibility can be examined. Suggestions for ways of organising and managing road safety education, outlining the advantages and disadvantages of each suggestion are included.

The consensus view of the group at the end of the day was that all the objectives had been met, with the exception of evaluating and monitoring, and that light had been shed on many of the complexities of the secondary school. Training sessions planned for the near future will include:

- secondary school profiles

- secondary guidelines

- secondary resources

- National Curriculum developments

- joint road safety officer/police work in secondary schools.

A uniformed Police School Liaison officer who works closely with one of the Road Safety area teams was included in the training aspects the following day. He outlined current and possible future developments in his work in schools. His inclusion in the programme was a direct outcome of the Project Coordinator's involvement in training programmes for Police School Liaison Officers, and this reciprocation augers well for the future.

At a subsequent training day, the road safety teams displayed examples of the materials they had prepared and used in their workshops, covering Key Stages 1 and 2. The quality of presentation was excellent, the ideas were innovative, and the content very relevant to the needs of both teachers and pupils. It is envisaged that the Road Safety Unit will build a bank of varied activities which would enable different types of presentation, according to the needs of an individual school. Workshops are considered to be particularly valuable, because they demonstrate ways of changing classroom practice, illustrate the effectiveness of road safety education within the National Curriculum, and highlight the resources available for teachers.

A further session provided opportunity for the evaluation indicators included in the primary guidelines document to be checked. Appropriate activities had been selected, which included both oral and active methods of elucidating the level of children's knowledge at different Key Stages. The consensus view was that, subject to some minor alterations, these activities would enable teachers, RSOs and/or parents, to evaluate the progress of individual pupils within the stated road safety education objectives.

4. ESTABLISHING LIAISON BETWEEN AGENCIES

4.1 THE STEERING GROUP

The need to establish a steering group for the project was clearly identified in the draft guidelines prepared by the Transport Research Laboratory. A number of agencies were contacted in Hertfordshire in order to establish a group which would oversee the project throughout the three year period. Initially the various stages of the project were identified as follows:

1. the development of policies for each of the agencies involved

2. the identification of the specific roles of each agency

3. the development of liaison strategies for the agencies involved, and effective methods for the deployment of all appropriate resources

4. the development of a support structure for schools, road safety officers and teachers

5. the development of an INSET model for teachers

6. the identification of teaching opportunities and resources

7. the development of working practices documents for schools and teachers

8. the implementation of an INSET programme

9. the review of the whole project and consideration of policies and strategies for implementation throughout the county.

These stages were not perceived as being strictly chronological but all of them needed to be considered at some point during the period of the project. With these stages as a framework the following agencies were represented at the initial meeting of the steering group on 13 December 1989.

Head of the Road Safety Unit

Senior Highways Engineer } These two representatives
Senior Adviser for INSET } shared the Chairmanship of the Group.

Divisional Education Officers
Health Education Officer
School Governor
Police Officer
Primary Head Teacher
Secondary Head Teacher
Project Coordinator
Transport Research Laboratory representatives
Reading University.

Stages 4-8 were developed and fulfilled by the Project Coordinator and stage 9 was undertaken by the Head of the Road Safety Unit. Elements of Stages 1-3 were further developed through the County Road Safety Plan 1991-1996 and the subsequent review document for 1991/92.

Meetings of the group were held at four monthly intervals when details of the implementation and progress of Stages 4-8 were reported by the Project Coordinator, who also outlined his plans for future work. These formal meetings ceased at the culmination of the project period.

Nevertheless, it was considered essential to establish a steering group initially in order to ensure that senior representatives of involved agencies had an on-going commitment to road safety education and would lend their support and encouragement to the project and be aware of its progress at all times.

4.2 LIAISON WITH THE EDUCATIONAL AUTHORITY AND OTHER EDUCATIONAL AGENCIES

4.2.1 Hertfordshire County Council cross-curricular guidelines

The County Adviser for Personal and Social Education who was responsible for drafting the guidelines for Personal and Social Education/Health Education invited the Project Coordinator to be a member of the working group. During a series of meetings the group identified the necessary strands and objectives, and the total document was submitted to the Chief Adviser for Secondary Education. As a result, his approval was obtained and road safety education is included in the Hertfordshire County Council Guidelines as follows:-

Aim 3 of the guidelines states, "The objectives of health education must relate to, and be determined by, the needs of the pupils in the individual school community. The objectives must be clear, achievable and appropriate to the age and developmental stage of the pupils". This aim might yield an overall objective - "to provide knowledge about road safety and to demonstrate its application".

Detailed objectives for Key Stage 1 could then be derived as follows:

i. to demonstrate knowledge about the potential dangers in the road;

ii. to practice safe behaviour in school;

iii. to identify ways of keeping safe and finding help.

Whilst objectives for Key Stage 3 could include:

i. to describe traffic problems near the school;

ii. to identify ways of improving the problems;

iii. to develop knowledge of ways of achieving the improvement such as the formation of pressure groups and the production of news-sheets.

The paragraph on teaching methods in the document suggests that contributions from organisations such as the Road Safety Unit should be planned and integrated into the programme with visitors working alongside teaching staff, rather than a discrete input not related to the rest of the programme.

Primary and secondary guidelines for road safety education are included in the list of reference documents, and the Project Coordinator is listed as support from the authority. All the documents will be useful in formulating school policies on road safety education.

4.2.2 Science advisory team. Key stage 4

Following one-day INSET jointly presented by the Project Coordinator and a Key Stage 3/4 advisory teacher to a group of science teachers, using those sections of the Salter Science series which focus on the support given by road safety education to Key Stage 3/4 work, the Project Coordinator was invited to address a Key Stage 4 science development team which was working specifically to produce a submission for the 1994 Hertfordshire Integrated Science Project (HISP). The latter is a modular course, each module covering more than one Attainment Target. The Project Coordinator suggested ideas for the use of road safety education as a possible module, resource materials were examined and discussion took place concerning the possible place of such a module in HISP. After further liaison meetings, the following module was included in the HISP submission.

BOX 6

HISP Submission

ROAD SAFETY 10 to 13

Strands:	Simple Motion	(AT10)	(cc - Health)
	Machines	(AT13)	(cc - Environment)
	Control	(AT12)	(cc - Economic Awareness)

The pupils' experiences to date will be documented by those associated with pedestrians, bicycles, cars and heavy traffic. The topic will explore a wide range of road safety issues, ranging from human reaction times (reflexes), the effects of substances and illness, learning and conditioning, weather and light conditions, to mechanical aspects including speed, acceleration, braking, kinetic energy and momentum. It is expected that pupils will use a variety of methods to collect and record information, including IT where possible. The laws of motion will therefore be developed and explored. There are opportunities to consider the cost of motoring in terms of accidents, vis-a-vis insurance, hospital care, emergency services, and social effects associated with bereavement or incapacitation. The operation of braking systems, and crash recovery vehicles can lead to a study based around levers and hydraulics, or these aspects may be pursued through the levers and forces involved in bicycles.

4.2.3 Technology advisory team

The Technology Advisory Team for Hertfordshire contacted the Project Coordinator in order to discuss the possibility of making a video with a road safety context for use in secondary schools. Having identified a suitable locality where the video could be made, the Project Coordinator attended a course staged at the Media Education Unit. The resulting video identified the reaction between pedestrians and traffic, with particular emphasis being placed upon the effectiveness of current engineering measures. It was edited by the Project Coordinator, and is now available for use through the advisory team.

The video has also been used as part of a road safety officer's training day, and by engineers who were identifying pedestrian behaviour. It has also formed part of a county wide training course being one of five contexts used to introduce technology into secondary schools.

4.2.4 Small school heads association

Many small primary schools exist in Hertfordshire, and head teachers of these meet regularly as members of the small school heads association. The Project Coordinator was invited to give a presentation to one of these groups on various approaches to road safety education in schools. The head teachers then participated in a selection of primary workshop activities, and considered appropriate resources. They subsequently discussed the possible inclusion of road safety education in the curriculum of their own schools.

Since this initial meeting, two similar groups have contacted the Project Coordinator requesting an input.

4.2.5 Wall Hall College - BEd courses

During the period of the experiment Hertfordshire LEA was still administering a teacher training college, and the Project Coordinator felt that this could provide another source of development for road safety education. Using contacts provided by the LEA, he wrote to the college, offering a variety of inputs to the course. Some time later, and after several further contacts, the Project Coordinator succeeded in speaking to a senior tutor within the Science/ Health Education Faculty at the College. Liaison appeared to be firmly established, and the tutor asked for time to see whether or not some input on road safety education into the one year PGCE and four year BEd courses could be arranged. However, because of the recent changes in teacher-training, the college decided that there was little space to be found in their courses, so to date, no input has been arranged. Nevertheless, many students on teaching practice have been participants in school based INSET on road safety education, so will have acquired knowledge of this aspect.

4.3 LIAISON WITH OTHER LOCAL SERVICES AND AGENCIES

4.3.1 Accident 2000 - work of Hertfordshire County Council Transportation Department and the Eastern Region Counties

In July 1987 the Secretary of State for Transport published 'Road Safety: The Next Steps", following a comprehensive interdepartmental review of road safety policy. The report threw down the challenge to reduce road casualties by the year 2000 by one third. The Eastern Region Counties and Department of Transport Regional Office have accepted the challenge and a seminar on Road Safety - The Next Steps was held in November 1990 in order to inform County Councillors for Hertfordshire of progress. The Project Coordinator was invited to outline the structure of the project and describe the potential development. This

presentation set the scene for the school based work, and established clear objectives for the future to very senior members of the County Council.

4.3.2 Linking with safety engineers

Current government legislation is now having a significant effect on the implementation of urban safety schemes by local authorities; and Hertfordshire has introduced several such schemes. The Project Coordinator liaised with one of the teams of safety engineers to develop links with schools in areas where traffic calming measures were taking place.

Schools were involved from the outset, providing a convenient venue for the engineers to set up exhibitions about the proposed measures for the public to see, consider and express opinions. Having been notified of the proposed engineering schemes, interested teachers were invited to a presentation by the safety engineering team, and the Project Coordinator arranged an INSET session for representatives from all interested schools in the area, both primary and secondary.

A working party of seven teachers, county council engineers and road safety officers was established, which focused upon the proposed schemes and the development of themes for road safety education which could be incorporated in a teaching package for all the schools involved. It was envisaged that the total package could be part of a project extending over a period of at least half a term. It provided a rationale for including road safety education in the normal activities of the primary school and many ideas for content within the context of the National Curriculum.

Activities suitable for both Key Stage 1 and 2 were outlined in a suggested topic plan and these were cross-referenced with the National Curriculum. Photographs of the actual designs adopted for the traffic calming measures and a full resources list were also included. The completed package was distributed to all the involved schools. As a result, the schools undertook a considerable amount of work which was centred around environmental changes, and concentrated on many aspects of road safety education.

The success of this enterprise, involving the co-operation of different interested agencies, has encouraged those concerned to repeat it in another area of the county, where traffic calming measures are proposed. At the initial meeting of head teachers and senior staff of the 17 schools involved, there were presentations by the safety engineer and the Project Coordinator, an opportunity for workshop experience, and a display of appropriate resources. This was very well received by the participants, and appropriate individual school INSET is being planned. Fourteen of the original 17 schools have responded positively, have a copy of the package, and are engaged in appropriate work with their pupils. It is worth recording two comments from the evaluation sheets distributed at the initial meeting:

> "More public relations exercises like this are essential for passing on information prior to changes being put into operation."

> "A worthwhile INSET session which we will follow up by using the package as an aid to our own topic work."

4.3.3 Health authorities

Throughout the duration of the Good Practice Project, the coordinator has liaised closely with representatives from the Health Authority, whether they were members of the Steering Group, development officers involved with the theatre group, or from bodies which meet regularly to focus on local initiatives. One such group was responsible for raising awareness of health-related programmes in the county, and the Project Coordinator was invited to address this senior group. He outlined the planning process which had been involved for both the primary and secondary programmes, and identified which, where and why the Authority should support road safety education. The circulation of notes on this presentation through an in-house information system resulted in a similar session being held with another area group.

4.3.4 BSM pre-driving course

Pre-driver education has always been an important component of the secondary school programme in Hertfordshire. Over a period of 4-6 weeks, Road Safety Officers visited schools to give a series of talks on various aspects of driving to the sixth form groups, many of whom would have been actively engaged in the process of learning to drive.

The Project Coordinator felt that a pre-driving programme could profitably target students who had not yet begun their driving careers. With the local branches of the British School of Motoring he produced an educational programme which included both theoretical and practical driving elements.

It was agreed that the target group would be those fifth form pupils who were considering entering the sixth form and were therefore participating in an induction week. Some 60 students in the trial school voluntarily attended the one day pre-driver course as part of their induction week. The programme included Law, Economics, the Highway Code, and a practical session in a Metro car on the private ground of the school.

Student evaluation sheets clearly indicated enjoyment and interest, and the success of the trial, and as a result the scheme was extended the following year to include seven more secondary schools. Subject to the agreement of British School of Motoring Regional Managers the package will be offered to further secondary schools.

4.4 NATIONAL ROAD SAFETY GROUPS

4.4.1 Institute of Road Safety Officers (IRSO)

The annual national conference of IRSO in July 1991 provided an important opportunity for disseminating the experiences of the project to a national audience. The presentation was jointly given by the Head of the Road Safety Unit who gave a summary of the background and events leading up to the appointment of the Project Coordinator, and the latter described the development of the overall structure of the project, the plan of action, the implementation, evaluation, and possible future development.

4.4.2 County Road Safety Officers Association (CRSOA)

At the suggestion of the Head of the Road Safety Unit the Project Coordinator liaised with a road safety officer from Suffolk to produce a training package for the Eastern Region of CRSOA which was used at a course held at Homer-ton College, Cambridge in September 1991. The training focused on primary school work highlighting the need for professional INSET, workshop strategy and total evaluation. The INSET structure which had been evolved for the project was used as a possible model for the morning session of the course, providing the opportunity for all 30 delegates to produce their own framework. Ideas produced by the Project Coordinator provided the basis for the afternoon session, which was devoted to workshop practice. A further input is planned for 1993.

4.4.3 British Institute for Traffic Education and Research (BITER)

The Project Coordinator was invited to contribute to three of the BITER national training courses for road safety offices/police officers, Phase II, during 1991/92. His session was concerned with road safety education in primary and secondary schools. Using the project as a working example, he concentrated on the need for school based INSET programmes for both the primary and secondary phase.

4.4.4 Warwickshire Road Safety Group

Following presentations by the Project Coordinator to various national bodies, and the invitation to many Road Safety Units to share the work experienced in the Snap Theatre programme, Hertfordshire was approached by the Warwickshire Road Safety Group, with a request to discuss possible training packages. Together with a divisional Road Safety Officer, the Project Coordinator spent a day in November 1992 with the Warwickshire Road Safety Officers in order to develop an approach which can be used in their primary schools. Elements of the Hertfordshire model were used and part of the presentation was given by the Road Safety Officer. It was felt that an officer who had been personally and directly involved in change would be a most useful tutor in this context.

The objectives of the training day were to enable the participants to:-

- identify the basic NCC language
- show an awareness of the key personnel in primary schools and the techniques for establishing initial contact
- identify a framework for primary INSET
- show how road safety education is being integrated into the curriculum within Hertfordshire primary schools
- know the importance of evaluating their approaches
- identify further training and development issues.

The programme was planned accordingly and included preparing and delivering presentations, topic planning and workshops. The delegates' evaluations of the training day included the following comments:-

> "Very thought provoking, this gives guidance for me in the way ahead."
>
> "An extremely useful day - very positive."
>
> "Lots of clearly thought out guidelines."
>
> "Well structured day and interesting ideas."
>
> "Would like a secondary day."

Following the training day arrangements were made for four key staff to visit Hertfordshire and observe the school based INSET in practice. A second training day was also arranged via the Warwickshire Road Safety Group which involved a number of authorities in the North Midlands and South Wales.

5. THE SCHOOL SCENE

Observing work in classrooms is probably the most effective way to assess the value of any educational strategy or change, and therefore various schools have been visited during the course of this project. Many admitted, that prior to the project, road safety education received only marginal attention: it could be a "one-off" talk by a police officer or road safety officer, part of a police week, result from an accident to a pupil, or be included in end of term assemblies.

The teachers' perceptions of road safety education were mainly confined to the Green Cross Code, Tufty Club, Cycling Proficiency, and the work undertaken was concerned with safe places to play, the Green Cross Code, different types of crossings, the work of the school crossing patrols and policemen, and random unfocused traffic counts. Road safety education was not considered to be an integral part of a structured curriculum, and no consideration was given to the basic problem that children lack perception of speed and distance, and this makes road crossing particularly hazardous for them.

As a result of the initiatives developed during the project there is now a greatly increased awareness of road safety education amongst teachers. They appreciate its breadth and complexity, the many factors involved, and its cross-curricular nature. This recognition is clearly evidenced in much of the work now seen in schools at both primary and secondary level, and certain examples demonstrate this recognition very clearly. The examples in the following chapters have been selected not only for the quality of the work undertaken in road safety education, but because they fulfilled other good educational criteria at the same time. Lessons were the result of careful individual and collective planning by teachers, and there was concern to identify what pupils needed to learn and what they had learned. Pupils were encouraged to participate in the learning process through a range of activities clearly related to the objective of the lesson, and supported by relevant materials. This links directly into the National Curriculum brief that education should involve "exploration and investigations" which are set within the everyday experiences of children.

Discussion is important to enable children to learn to express their views and opinions and substantiate them and this was particularly true when pupils worked in groups considering the relative merits of different types of safety elements, or making an alarm system for a cycle. Much of the work encouraged the development of vocabulary and language skills by recording and discussion and provided some mathematical and technological experience. Links with science appear very frequently, and observation and study of the environment which may or may not contribute to road safety education were included. Discussion of the causes and consequences of accidents often led to consideration of the human behaviour and attitudes that caused them to happen, and personal responsibility in terms of ethics and morality.

The range of activities offered was wide - oral, written, individual, group and class and provided opportunity for problem solving, and decision making. Every attempt was made by teachers to give their pupils transferable skills in terms of road safety, and children appeared to listen, learn and remember what they had been taught, but, sadly, we still cannot legislate for those who fail to put what they have been taught into practice in their daily lives. Pupils were encouraged to see that they themselves have a part to play in keeping safe, and language and concepts that they could understand were used.

5.1 WORKING WITH PARENTS AND GOVERNORS

Throughout the project, considerable efforts have been directed towards purposeful and educative links with parents and/or governors. Through work undertaken in Phases II and III, the Project Coordinator has often managed to support and complement many of the pre-planned events in a school programme, such as parent information evenings, consultation evenings, open evenings etc. By this means, much of the rather more contentious areas of parental responsibilities may be addressed. Indeed, some of this work has led into the school policy planning. Some examples of parent/governor links are outlined in the following sections.

5.1.1 Shared pupil/RSO/parent information evening

Following the INSET and workshop stimulation, the staff and pupils spent three months of curriculum time, extending many of the road safety education ideas. Parents were then invited to an evening of 'Road Safety', when the pupils presented much of the work. The evening lasted from 7-9.30 p.m. and over 90% of the parents attended. Three classrooms and the main hall were used to display the variety of work undertaken by the pupils which included aspects of friction and reaction testing; routes to school; be safe be seen; and signs and symbols. Parents were encouraged to use the equipment constructed by the pupils, and question them on their knowledge of road safety.

5.1.2 Road safety work as part of an introduction to new areas of the curriculum evening

Following an INSET and workshop, the school decided to develop road safety within a current whole school topic theme of Transport and Journeys. The purpose was to develop a series of workshop activities in each classroom which could be observed and/or actively used by parents. Road safety featured prominently in the evening session, and included two displays of cycle safety wear and traffic dangers, which were loaned by the Road Safety Unit. These were chosen to complement the work undertaken by the pupils, which included safety posters, poems/stories with a road safety theme, science activities, and computer programme and concept keyboard work.

5.1.3 Open Evening

As a consequence of INSET and workshop, the school agreed to include some of the road safety work in their open evening display on the theme of safety. The opportunity to

select from the various road safety unit displays was enthusiastically accepted, and included those on Cycle Safety, Be Safe, Be Seen, and Strap in the Back. These provided a backdrop to the related work of the pupils - Cycle Safety complemented children's work on cycle helmet design, Be Safe Be Seen that on garment design, and Strap in the Back to the impact test. Many parents were particularly interested to see how differently road safety was presented, compared with their own recollections of how this had been taught.

5.1.4 Evening workshop for parents and children

Over 50 parents attended the workshop with their children. The head teacher outlined the objectives and arrangements for the evening, and a group of four pupils then presented a short play they had written on pedestrian and cycle safety. In four groups, working in separate classrooms and the hall, parents and their children sat at tables previously prepared with 'Go with Science' books, instructions and all necessary materials, and became fully involved in carrying out the exercises and experiments under the guidance of teachers. The range of activities included making vehicles from shapes, creating a road environment, the 'parrot' balancing act, making a dimmer box, and using the Reflectaview impact (brake) meter. A report of this highly successful event was included in the newspaper produced by the school. The parents enjoyed the experience of working in this way with their children, but, perhaps more importantly gained insight into curriculum methods, materials and road safety education. It is envisaged that this event will prove to be the foundation for the school road safety policy for teachers, parents, governors and pupils.

5.2 ROAD SAFETY POLICIES

In the original Transport and Road Research Laboratory Guidelines, a great deal of emphasis had been placed on the creation of road safety policies in each school. However, experience over the project period suggested that to pursue schools to undertake this task too early in the three years, could have resulted in:-

- negative feedback due to the pressure to produce policies in other curriculum areas
- concern as to the readiness of the Road Safety Unit to assist schools in the development of their policies i.e. Did it have an appropriate framework of guidelines, LEA statements etc?
- the possibility that there might not be a point of reference in current LEA documentation.

Towards the end of the project however, and with the support of the RoSPA Governors' checklist, the Project Coordinator has been involved in supporting schools in the development of such policies. Working on an individual school basis, the coordinator produced a primary and secondary draft policy statement, from which schools could extract the relevant information. This draft included areas such as:-

- areas of road safety education
- objectives for each key stage
- philosophy for road safety education
- possible organisational models
- example statements for community links
- NCC references
- LEA references
- Road Safety Unit references.

Although these are early days, several schools are becoming actively involved in this area including one school which is currently writing road safety education into its 1993/94 school development plan.

6. EXAMPLES OF TEACHING RSE IN PRIMARY SCHOOLS

The first set of examples are those observed at Key Stages 1 and 2. Key Stages have been chosen as dimensions of representation because attainment targets may be in the process of change. It should be remembered that at Key Stage 1, children are more likely to be involved in road accidents as pedestrians or as passengers in cars. At Key Stage 2, pedestrian casualties are even more frequent, and cyclist casualties are becoming increasing.

6.1 HEALTH EDUCATION/SAFETY TOPIC

Pupils in a reception class had made individual road safety books which contained drawings of crossing roads and simple maps, and writing of stories associated with road safety. Part of the dressing-up corner had been turned into 'Charlie's Road Safety Office' and contained police hats, traffic cones, and fluorescent/reflective police jackets. The children had made up a play about two families, one 'safe', the other with a child who had run off, crossed a road between parked cars and was run down. They performed the play to other children, taking the parts of police, parents, and car drivers in the story of the accident. Work with science was evidenced by a chart of a 'Go with Science' experiment, looking at the safest colours.

6.2 TOPIC SUPPORT

Pupils between the ages of 5 and 8 in a speech impairment unit were following the topic of Moving. They had made an

attractive class book with photographs of pupils who went for a walk to identify various signs - roundabout, bus stop, halt, fire hydrant etc. All the pupils could identify each sign and knew its purpose exactly. Excellent drawings, paintings and writing about their own cycles were displayed, and many were knowledgeable about cycle parts. A detailed traffic count had been translated into a pictorially illustrated graph and there was a variety of individual paintings carrying appropriate road safety slogans, e.g. use the zebra crossing to cross the road. One group of pupils was playing with a road safety board game played with dice on the snakes and ladders principle which had been made for them by a retired deputy head. Additionally the visiting speech therapist reinforces road safety education, as one of her resources includes an illustrated card of road scenes and an accompanying tape on "How do you get there?"

6.3 CORE SUBJECT/SCIENCE/ TECHNOLOGY

Road safety education is firmly incorporated into the curriculum of this school, largely through science and technology, because one of the staff attended one of the initial 'Road Safety through Science' workshops held at the area teachers' centre. Subsequently the Project Coordinator worked with her in her classroom, developing some of the 'Go with Science' practicals to such an extent that she began to include many of them in the science curriculum documents for all the staff.

Following a whole staff workshop supported by the Project Coordinator, it was agreed that elements of the workshop should be used at a Science Information evening for all parents. This function was attended by the Project Coordinator and a road safety officer who set up some activities, display boards and slides inside the main hall which complemented activities being used around the school. Activities on display included the dimmer box, a cycle and gears, work on conspicuity, safe routes to school and friction tests.

The success of all these inputs is reflected in the close links which have been established with science and technology which ensures that there is a regular road safety education input in every year group. Evidence of this was provided in the work seen.

Reception pupils had looked at simple maps, and using building bricks had made a simple triangular shaped village. Using model cars, children had to position parked cars and using two figures select 'naughty' places and right places to cross the road. A 'naughty' place was between parked cars, and pupils were quick to say they would be in danger because they could not easily be seen, and a driver might decide to reverse his parked car prior to driving out. Hand-holding with a grown-up was emphasised and pupils were encouraged to tell a grown-up when it was safe to cross a road. The use of a pelican crossing, and the reason for the bleeping noise were discussed very sensibly by the pupils.

Year 1 were following a topic on Europe - particularly Denmark. There was discussion with the pupils on the signs to be watched for on a walk concerning safety e.g. school signs, arrows indicating where you can walk safely when

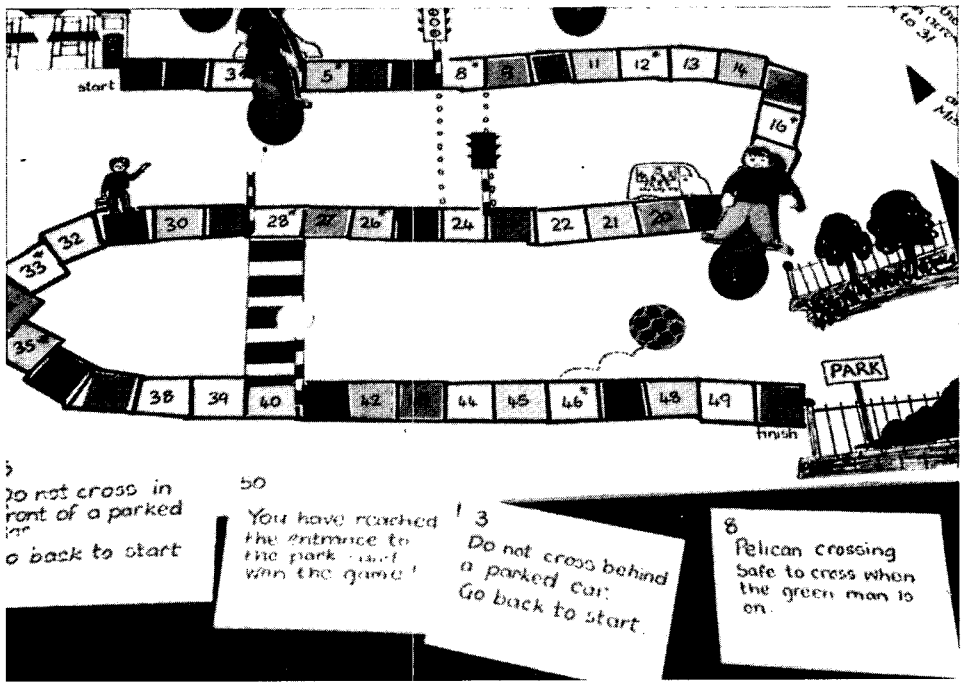


Fig 10 Road Safety board game

workmen are repairing a road, zebra and pelican crossings. As safer crossing places are necessary wherever there are cars and people there would be something similar in Denmark. The need to stop, look and listen was emphasised. Pupils then made simple maps of a village indicating the safest places to cross the road. They became quite absorbed in this, and produced very creditable results.

Year 2 were studying different types of safety helmets and their use and differences between the hard hat for riding, and that for a cycle or motorcycle. They were also considering designs to make cycle helmets more attractive. They were then going to look at their own outdoor coats - could they be clearly seen in e.g. foggy weather, and the dark, and if not, what steps should they take to ensure conspicuity?

Year 3 and 4 looking at sound, were testing materials for the best head gear to hear motors, cycle bells etc. Pupils made simple headbands, and earpieces out of a variety of fabrics, including wadding and cotton wool. They were tested by a child wearing their headband standing with their back to another pupil who made the appropriate noise and comparisons were made concerning clarity with different fabrics. This was linked with the sort of headgear children wear, particularly in the winter, such as ear muffs and drawstring hoods, which diminish hearing capacity.

Another small group was working with the dimmer box to find which materials were reflective and which were fluorescent. This was related to appropriate clothing and the protective jackets worn by police and crossing patrols.

Year 5 were following the Science and Sound topic, and were engaged in making an alarm system for a cycle. This involved considerable discussion between the pupils, problem solving and decision making, use of circuitry etc. The alarm produced was a buzzer, and some pupils also linked this with lighting circuits.

Year 6 were studying 'Headgear' and trying on a cycle helmet, riding helmet, balaclava, and woolly hats. They had to decide which one would keep them warmest and why, and devised tests for hearing and seeing when wearing them.

6.4 SUPPORTING CROSS-CURRICULAR THEMES

In November 1990 this JMI school participated in a Phase I INSET, after which a workshop session was requested which took place in June 1991. The Project Coordinator prepared a cross-curricular format which was well received by all the staff, who then discussed the possibility of focusing on road safety education for a cross-curricular information evening to be held for parents in March 1992. The Project Coordinator was invited to help staff in the subsequent two planning sessions in July 1991 and January 1992 during which the specific road safety input could be decided. Staff produced their own detailed plans, and these together with suggestions from the Project Coordinator were fully discussed, with staff being given time to consider how they could develop the various possible themes. By the end of the session an agreed format had emerged as follows:-

- Reception - Weather
- Year 1 - Moving Toys/Games
- Year 2 - Local Environment
- Year 3 - Where we Live
- Year 4 - Communication
- Year 5 - Science Topics
- Year 6 - Victorians (Cycles)

Between July 1991 and January 1992 the staff were left to develop the classroom work which would support each theme, although the Road Safety Unit gave help as and when necessary. Throughout the Head Teacher gave her enthusiastic support to the work and saw it as a way of identifying her school policy on road safety education. The ensuing curriculum evening was attended by 90% of the parents, and was supported by the road safety officer with two displays. One display was concerned with increasing driver awareness of the fact that speed kills, and the other with day and night-time cycle safety. When parents entered the hall they had to negotiate a "crossing", which was policed by children, and follow a route around the hall which was identified by road signs. Classroom work upon various topics was displayed as well as various table top and computer stimulated road safety education games.

The various topics are listed below:

- Environment included local geography and models and maps of safe routes to school.
- "Safety in all Seasons" slides and display.
- Cycle safety and the history of bicycles.
- Science based 'function' activities were displayed.
- Communications theme used road signs designed by children.

During a subsequent visit to the school Y6 had just returned from a school journey, which had obviously included a great deal of related road safety education i.e. behaviour on the bus, on individual visits, on the ferry, walking on country and other roads, and in the hotel. Y4 pupils had been following the Good Health programme made by Central Independent TV. This includes a computer programme which asks its users to plan the shortest but safest route home on a given diagram of roads and sheets, taking into consideration a variety of hazards on the way which are

displayed on a map. It also allows pupils to use some statistical information about accidents. Three pupils were observed using the programme which gave rise to a great deal of debate, discussion and final decision making by them.

Science has included work with the dimmer box, and experiments to assess which colour of cars are most easily seen for which the teacher had prepared her own worksheets.

Work is also linked to RE, where there is a moral code of behaviour, and for roads where there is a Highway Code which has rules for safety on the highway.

6.5 WHOLE SCHOOL SPECIFIC TOPIC

Road safety education in this JM school is the responsibility of the teacher who is the science coordinator. Each coordinator in the school produces a teachers' resource pack and folder covering work for each year group, employing topic webs also where appropriate. As the school does a whole school topic every term, all classes follow the same topic, albeit at different levels, so road safety education is incorporated where appropriate for every class.

One project undertaken by the school was Cycles, Chains and Circles. A local man who has a superb collection and interest in old cycles came to talk to the pupils who were given the opportunity to ride some of the models. The Road Safety Officers brought the reaction tester to school on loan for a week, so the pupils could test their own reactions in terms of braking times and this information was fed into a computer package which gave percentages and bar charts. During the entire term pupils studied bicycle maintenance - repairing punctures, sizing wheels and braking systems, the Highway Code and road signs and conducted various road safety experiments such as those concerned with stopping distances, and best colours to wear at night and during the day. This work was jointly presented by road safety officers and teachers, across the age groups, in a modular workshop format. From this topic, everything from models to books were produced by the pupils. The latter were very well presented, and included work on different types of cycles, with pupils' own drawings, experiments on stopping distances for cars on various angles of slope, precautions for crossing roads, and descriptions of safer places to cross. It is particularly noteworthy that the school has successfully incorporated road safety education into the science curriculum, thus ensuring that all pupils follow related work where appropriate.

6.6 SAFE JOURNEY TOPIC

Y6 in this junior school worked on 'The Safe Journey' to school topic. As a preliminary, pupils were asked to draw a plan of their journey to and from school, mark in safe and dangerous places to cross, and write about any accidents in which they had been involved or observed. All pupils in the school were asked about their routes to school, how they travelled and with whom and this information was put on a database. Accident reports from local papers were collected and pupils wrote accounts of their own accidents in newspaper report format. Pupils considered road signs and their meanings, made dimmer boxes for experiments on conspicuity, and in the course of studying safe places to cross in the road outside the school, noticed that there were no school signs. They wrote to the Highways Department concerning this omission, and as a result of this group action, at least one, if not two school signs will be erected. Assemblies were planned by the pupils to be given to the contributory nursery and infant schools and their own school on road safety matters, and parents and governors were invited to attend. This assembly presentation was recorded on video. Some pupils from the group took their cycling proficiency test in which they were not allowed to participate unless they wore cycle helmets. Apart from large class folders each pupil had prepared their own indexed book on Safe Journeys, containing records of the following work:-

- Use of Green Cross Code and cut out illustrations of children crossing the road.
- Directions for using zebra crossings, pelican crossings, and traffic lights.
- Subways, school crossing patrols, footbridges, traffic islands, policeman and traffic warden.
- Road signs and their meanings.
- Descriptions of personal experiences of accidents.
- Crossing roads in the vicinity of the school safely.
- Accident facts - reasons why pupils are involved in accidents.
- Dangerous places to cross the road - parked cars, junctions.
- Be safe, be seen - fluorescent and reflective strips and safety helmets.
- Pupils' own evaluation of their work.

Unquestionably this project has increased awareness of road safety education amongst pupils of this, and the feeder infant school. The work has involved aspects of Technology, Geography, Language, Mathematics and Science.

6.7 WHOLE SCHOOL PROJECT ON ROAD SAFETY

This small JMI school, situated in a rural environment, has incorporated road safety education into its curriculum and

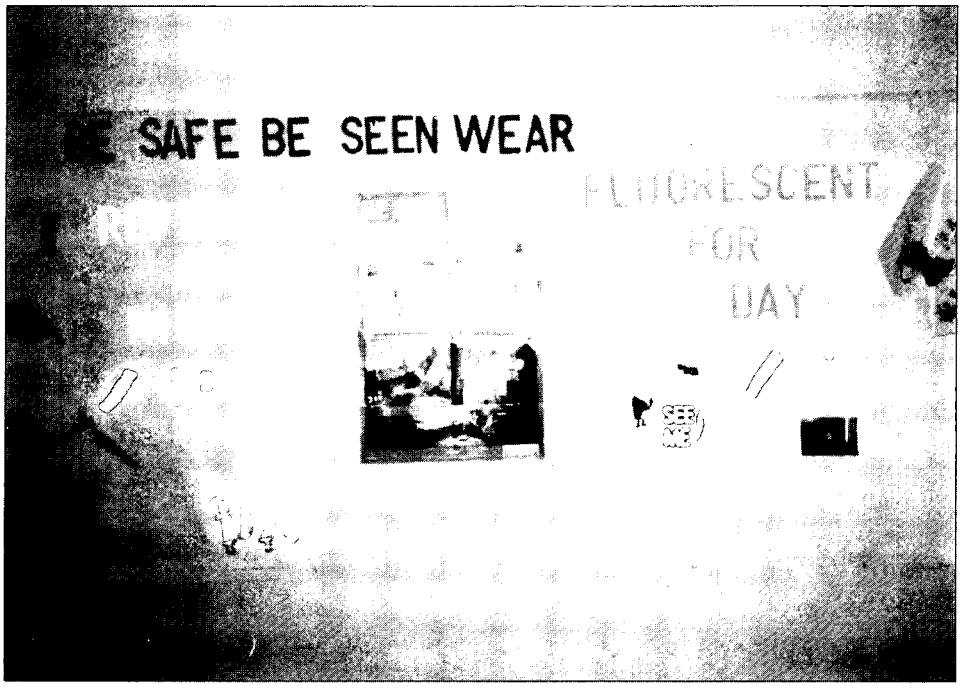


Fig 11 Exhibition of reflective and fluorescent materials

this was clearly evidenced by work displayed at a parents' evening. Class 1, which contains pupils in the reception year, and Years 1 and 2 had done a project on celebration, as part of their religious studies, and this had spin-offs in science and road safety. One aspect of celebrations is the use of decorative lighting such as candles. Study of a candle involved the consideration of how light sources may be enhanced by the use of lenses or mirrors, how candles need oxygen to burn, how some things are easier to see in poor light than others, and how lighting is provided to make roads safer at night. The display included a light box, and a range of cut out figures dressed in different materials to demonstrate the kinds of clothing that can be seen at night.

Class 1 had also gone into the village, armed with a camera, to make a road safety survey. They had discovered that it was quite difficult for children of their size to see properly and cross the road safely near the village shops, because of the parked cars. They had recorded that even some drivers had difficulty seeing when they wanted to pull out and they thought that many cars were driving too quickly past the shops. They were also worried by a hedge separating a public playground from the road. There was no footway and children coming out of the playground could not be seen until they were into the carriageway. All the visibility problems were beautifully illustrated by the children's photographs; one father was overheard to say that he had not realised before the problems that children faced because of their size. The chairman of the parish council had been to the school to talk to the children about the survey but no information about actions proposed by the authorities was available at the time.

Class 3 had been studying a project on colour and light. They had studied the different colours used on road signs and the reasons for their selection and their display included traffic signs. They had reinterpreted the school rules and presented them as DOT traffic signs and extended the exercise to include signs with road safety messages that they had gleaned from working with the CRSOA "Survival Code Materials". Apart from the fairly conventional "Wear a seat belt", "Don't be dumb - look", and "a helmet or a grave", there were two that were very memorable:

"Don't be a pratt wear a hat"

"Don't be flat like a mat"

The pupils had especially looked at red, as this colour is the danger sign for animals, birds and humans, and is associated with stop and danger. They had even observed that human skin becomes red when we are sick, or burned, embarrassed, or angry.

The pupils play many games in PE which are intended to make them aware of the difficulty of stopping quickly and the importance of listening and concentrating when crossing busy areas. They play traffic lights, stopping quickly at different sounds, running across the hall from two sides at once, trying to avoid each other and doing the same thing but holding an object at the same time to include more variables. Hoops and jumping stands are used to create bottlenecks and roundabouts and this gives rise to discussion concerning rules which are necessary to prevent accidents.

6.8 SUPPORTING PRE-PLANNED TOPICS

As a result of workshops run by the Project Coordinator and help from the local road safety officer, road safety education is included in all appropriate topic work in this junior school, thus becoming an integral part of the curriculum. It also finds a place in the school document on Health Education. Pupils in Year 1 had carried out simple experiments with boards sloped at different angles to find out how far cars would go, in connection with friction. They had also done a traffic survey in two separate, though nearby roads, to see how the volume of traffic varied - one road being very much busier than another, and the reasons why. All this work was incorporated in well presented folders.

Year 2 had followed a Travel Topic, including work on the Green Cross Code and Shape in Maths, and road signs had been studied. In PE, a "road" is sometimes constructed down the hall for the teaching of good road user behaviour.

Years 5 and 6 had to solve the problem of organising movement in the dining room in the event of the school losing some dinner ladies. They had to identify the problems that would arise, explore equipment and avenues which controlled people and traffic, and decide what their solution should be. They selected various types of traffic lights and adapted them - e.g. a different coloured light for each year group, which moved forward in line in the dining room when the appropriate light was showing. The results were good, ingenious, and evaluated by the pupils themselves. This work clearly illustrated links with science and technology.

Parents always help with groups of pupils going traffic surveys so are well aware of the classroom work in the field of road safety education. This is also observed by governors during their visits to classrooms.

6.9 ROAD SAFETY WEEK

This junior school identified a need to plan safety formally into the curriculum on a four year rolling programme, and decided to concentrate the safety programme into two weeks towards the end of the Easter term. The overall idea was discussed with the Road Safety Unit, and it was agreed that the latter would support one session per class in any road safety topic where staff felt their assistance was required. The Unit lent a wide variety of resources to be viewed by the head teacher and staff to enable them to select those that they felt would be most appropriate for the selected topics. These were finalised as follows:

Year 3 - Child Safety - to include personal safety, rules, routes to school, safe places to cross the road and playing safely.

Year 4 - Movement to include grip, speed, reaction time and stopping distance. Farm/countryside safety. Railway safety.

Year 5 - Communications - to include road signs and signals, traffic lights, colour in communication, sounds that communicate, emergency services, railway safety.

Year 6 - Include young cyclists training course, tyres and grip, history of the cycle, cycle maintenance, cycle lights, cycles of the future, road safety mathematics and railway safety.

A road crossing scenario to include parked cars was set out in the school drive and the playground was used to test stopping distances on bicycles. Evaluation sheets were also prepared for Key Stage 1 and 2, covering the four different year group topics, and these included such aims as:-

- to encourage children identify and use safe routes to school
- to develop awareness of the problems of ALL road users for conspicuity.
- to investigate the problems of judging speed and distance.

The road safety officers' input included a practical road crossing section and the showing of the video 'What is a Safe Way' to Year 1, stopping distance experiment with a cycle, and the effect of different types of brake blocks and different speeds with Year 2, a talk on sounds and their importance in road safety and be safe, be seen to Year 3 and cycle training instructions, tyres and punctures, different tyre treads for different purposes and the maintenance of tyres and wheels with Year 4.

Pupils in Year 3 worked on colours for safety, and studied peripheral vision in a general science topic on eyes, as part of their topic, and had also practised crossing between parked cars in the school drive. Those in Year 4 had considered how movement may be sensed, carried out experiments on shoe grip on dry and wet slippery surfaces, and experiments on stopping distances of a car, a lorry and bicycle on dry and wet surfaces. The results of these were related to different road conditions, and the pupils drew certain conclusions e.g.

- the faster you travel the longer it takes you to stop
- with wet brakes it takes you longer to stop than with dry brakes
- on a wet surface the tread on tyres and shoes does not grip as well as on a dry surface
- you must always be careful on roads because all vehicles cannot stop straight away.

Year 5 considered communication by word and gesture with reference to hand signals when cycling, and then studied communications used in the road context - signs, sounds, lines and lights. In connection with the latter they had also made traffic lights and pelican crossing models in Technology, which had involved designing their own circuitry. They tested their individual reaction times both by manual and machine methods. Year 6 looked at the history of the cycle, carried out experiments to investigate the grip of tyres, and measured the tyre depths of staff cars, constructed a simple bicycle light, and considered safety in clothing worn on a cycle, and the merits of cycle helmets. Active participation by the pupils was a prime consideration in all the year groups as this could be used as an evaluation of their knowledge and understanding.

6.10 DEVELOPMENT OF ROAD SAFETY EDUCATION THROUGH LINKING WITH ENGINEERS

Reference has already been made earlier in this report to the work of the Project Coordinator in liaising with one of the teams of safety engineers to develop links with schools which were sited in areas where traffic calming measures were taking place. One such group of schools worked with the safety engineers and road safety officers to produce a teaching package. This included a rationale for including road safety education in the normal activities of a primary school, and many ideas for content within the context of the National Curriculum. Activities for both Key Stages 1 and 2 were outlined in a suggested topic plan and these were cross-referenced with the National Curriculum. All involved schools received a copy of the completed package. As a result, a considerable amount of work was undertaken which centred around environmental changes, and included a concentration on many aspects of road safety education. In one junior school, it was decided that the group of pupils participating in this work should be Year 6, the work being combined with a study of the local environment. Their work was incorporated in topic books, made by pairs of pupils, and these contained a record of a wide variety of work covering Science, Geography, English, Design Technology and Mathematics. Each book, entitled "Our Environment" had an appropriately decorated cover, and contained the following work:-

- Traffic surveys on number of vehicles, types of vehicles, speeds of vehicles, using a radar gun and deciding which were exceeding the limit. These were presented in a variety of ways - pie charts and block graphs.

- Safe routes work - making a map and marking their own route to school, and routes to family and friends in the area.

- Map work used in a survey of local shops, and writing about the merits of the shops for a local newspaper.

- Labelled drawings of road signs.

- Recording of practical work on inertia, and stopping distances for walking, jogging and running and for cars, using a radar gun. The distances were measured on the playground and field.

- Writing about reasons why children are vulnerable near roads - e.g. limited height.

- A pack for younger children with road safety advice. This was part of design technology work and pupils were asked to design a road safety campaign.

- Road safety poems (see box 7).

BOX 7

Road safety poems

Road safety
Orange lights for zebra crossing
Amber means start up
Danger is walking without looking
Some children get killed
After dark wear reflective things
Forty miles an hour can kill most children
Every day children get killed
Twenty miles an hour can kill one in twenty
You won't be the next one if you're careful.

Whenever you cross the road
Always use the Green Cross Code.
And if you are a driver
Driving on the road
Remember the Highway Code.
And if you are crossing the road
And don't know the Green Cross Code
Look right, left and listen
Then you can stay safe.
And when your parents tell you something.
Always listen.

Three attractive wall displays had been made. One was concerned with speed limits and consisted of a local map with speed limit areas marked, large painted speed limit signs, and a recording of the effects of a vehicle hitting a child at speeds of 20, 30 and 40 mph. A second was entitled 'Road Safety' showing photographs of possible traffic calming measures, a map of the local area, and various leaflets and information from Hertfordshire County Council and the Department of Transport. A third display was of a life-sized van and car which had been measured by

pupils in a car park and were used to demonstrate how restricted the vision of children can be. Subsequently the pupils gave a clear factual presentation of their findings in a visual manner to the rest of the school and some parents and supported this with a special display on 'Road Safety Science' about inertia, stopping distances and traffic surveys.

A major undertaking by the pupils was designing their own traffic calming schemes. They began by considering the published options of the county for road calming measures, and costed and assessed the effectiveness of each. They were able to work with an engineer carrying out traffic and speed surveys and watched the various stages as the road works were undertaken. As a result of their speed surveys of traffic passing along a road without speed reducing humps installed, the pupils discovered that 70% of the passing vehicles were exceeding the 30 mph limit, thus indicating the dangerous nature of this road. Using their knowledge and understanding of traffic calming measures, and taking costs into consideration, the pupils designed their own traffic calming schemes for this road; and turned their designs into papier-mache models. The County Engineer was very interested in the schemes produced by the pupils and took notes and photographs of them. Throughout, the project provided pupils with opportunities for discussion, decision making and evaluation. The teacher prepared very well planned and interesting work sheets, and coordinated welfare help to help groups of pupils in practical work near the roads; a science input from the advisory teacher dealing with forces, momentum and friction was linked with the project, and the head covered for the class teacher when necessary and supported the work. The project was multi-disciplinary and very wide-ranging covering many aspects of the National Curriculum.

A second junior school had two displays in the entrance hall concerned with the road humps. One was a model road with circuit lighting, and the other of road signs made into clocks which the pupils could take home. Additionally a third year group was engaged in making an excellent model of the road outside the school, with the traffic humps, and models of the school and houses. There was a wealth of pupils' stories, poems, and accounts of installing the humps, shown in boxes 8 and 9.

BOX 8

Poems about traffic calming

Sleeping Policeman

Peascroft Road used to be fast,
But now I'm happy to say that's all in the past.
The lolly pop lady thinks it's really cool
There are loads of humps outside our school.
It's safer now for me and my friends
The cars can't go fast around the bends
They have to crawl along the road
But we always remember our Highway Code.
We see lots of cars have near misses
It's nice of the Council to grant our wishes
Some people say the humps don't look nice
But for safety they are worth it at any price.
Lee Sumbenton.

Sing a song of sixpence
A pocket full of rye.
Four and twenty accidents
Since last July.
Humps were then constructed
To make the cars slow down
No-one uses Peascroft Road now
As a short-cut to town.
The people in their Audis
Driving far too fast
Now all go another way
We're safer now, at last!

The children also collected and graphically illustrated remarks made to the head teacher by irate motorists such as "Fancy putting that width restriction by the school field. I used to get up a nice bit of speed there." "They've really overdone it with those humps." "Those humps have added five minutes to my journey from Aspley to Luton. This used to be a handy short-cut." "Children will get run over with or without those humps. It's part of growing up!" "Those humps are ridiculous. I haven't any children anyway."

Pupils had also done surveys on the makes of car that passed the school and the numbers of cars using the road before and

BOX 9

Essay on a traffic calming scheme

The Changes to Peascroft Road - a report by Chris Pedlow.

In Peascroft Road there used to be a lot of car crashes, and people being knocked over. Last year there were 21 such accidents. All the people that go to our school asked the County Council if they would try to slow down the traffic. The County Council put 15 humps in. Three of them are flat topped so people can walk over them, and the other twelve are curved humps. In the middle of Peascroft Road there is a width restriction and at Bennetts End and Northend there are two mini-roundabouts. Now in Peascroft Road the traffic is cut by a third and the speed reduced tremendously.

after the humps were built. Their graph revealed a sharp decline in cars using the road after the installation of the humps. Photographic records of every accident were kept.

A third junior school, in addition to traffic surveys and road signs had discussed the effect of accidents on the family and the community at large, and interviewed people using nearby shops to obtain their opinion of the humps. They found that opinions were evenly divided.

Unquestionably the local traffic calming scheme was a catalyst which stimulated road safety education throughout the curriculum, and which furthered relationships between schools and safety engineers. It also provided opportunities across the schools, for work in English, Art, Maths, Design and Technology, Craft, Science and Geography.

7. EXAMPLES OF TEACHING RSE IN SECONDARY SCHOOLS

Within Key Stages 3 and 4 young people undertake more complicated journeys, many of which involve the use of a cycle, and are usually lacking in adult supervision. The influence of the peer group is quite considerable for these age groups and may be reflected in the reluctance of many to wear safety equipment such as helmets and reflective strips, and their sometimes dangerous behaviour on the road, such as playing chicken. As a result, the number of accidents involving these pupils rises considerably, while, at the same time, the amount of road safety education received at school markedly decreases.

This may be due to several factors: secondary schools are traditionally subject orientated, and while subject staff may realise the implications of their subject in respect of road safety education, they will maintain that conveying knowledge of their particular specialism is their main responsibility. The much larger numbers of staff makes school-based INSET for all staff on a cross-curricular aspect of education such as road safety virtually impossible. Aiming such INSET at a specific subject department would be equally difficult as this would imply identification of particular subject areas as concerned with safety, rather than the National Curriculum dictate that this is a cross-curricular matter.

In any case, road safety education is generally regarded by the secondary sector as being the exclusive province of the primary school. The main reference in Hertfordshire was in personal and social education programmes when modules dealing with alcohol and drugs are considered together with their influence on both driver and pedestrian behaviour.

However, the Snap Theatre production has undoubtedly brought about change in those secondary schools where the performance and workshop have taken place. Naturally, the response has been variable, ranging from revision of the PSE programme to the inclusion of road safety education in the curriculum areas where the school considered its inclusion to be appropriate.

7.1 CROSS-CURRICULAR LINKS

Prior to the Snap Theatre experience it was felt very strongly that road safety education was a matter of parental responsibility, and the only contribution to be made by the school was a series of 20 minute assemblies, one for each of the school years and taken by a road safety officer. This approach was not regarded seriously by many school members, and even before the theatre initiative it was felt that changes were necessary if the message was to remain. In both trial years the visit of the Snap Theatre team was used as the initial stimulus for a scheme for Year 8 pupils, and for departments who could see relevant links to feed from this. In the second year a more definite 'risk-taking' theme was introduced, as it was felt that this would help in the delivery of some elements of the National Curriculum cross-curricular themes.

Prior to the performance, in workshop groups, pupils looked at risk taking situations that may confront them, though without realising the reasons for this. They identified possible risky situations, and concluded that most situations had risk potential, and it was the response to the situation that was important. This was an excellent introduction to the 'Go for It' production, after which there was a debriefing session with the pupils to elicit the feelings of all those who were affected, directly or indirectly, by the accident. Pupils then participated in a workshop organised by the Snap Theatre team which involved all 150 pupils in Year 8. This developed the effects of peer pressures on possible risk-taking situations, and the summary remarks made at the end of the workshop situation by the Snap project-leader gave the pupils much food for thought.

A member of staff from the English department saw this as an important follow-up, and used it for the next English lessons, where a productive discussion took place. Many of the points raised during the stimulus day were reinforced. The pupils then wrote down their views of the whole experience and the lessons, if any, that they had learned from it. A wealth of material was produced for an excellent display which focused on twelve different aspects of road safety and risk taking. In the first trial year and with the help of the School Liaison Police Officer, pupils considered road accident situations, and different ways in which they could be reported. In the first year also, the Drama teacher was able to develop experiences brought out in the production and workshop and allow pupils the opportunity for active role play, and story developing, but changes in the planning of Drama in the curriculum prevented this work being extended to the second year trial.

The greatest thrust came from the Year 8 Technology course which identified this for the term's work, the context

being the community and the adopted theme 'Road Safety'. Areas in which work has been developed in the past two years include construction, food, textiles, graphics and IT and Art and Design, the exact content varying with the staff available in the Technology team timetabled at any particular time. Construction developed designs of road safety aids such as flashing reflectors, traffic light poles for crossing patrols, research and modelling of road layouts and possible speed restrictions, many related to local area situations. Food studies encouraged the eating of healthy breakfasts in order to raise physical and mental awareness, and designing low fat diets to reduce the rate of chronic heart disease within the potential driving population. Pupils made contact with the community by making artifacts suitable for sale in school, the profits being donated to the needs of child accident victims in local hospitals. Textile groups identified needs implicit in the BE SEEN, BE SAFE slogan, and designed and made artifacts for cyclist and pedestrian use, combining attractiveness and practicality with the correct wearer 'image'. This work included evaluation of the use of reflective and fluorescent materials. Work in the Art and Design/Graphics and IT areas revolved around the development of promotional posters using both traditional art and Desk Top Publishing methods, and the composition of questionnaires regarding accident causes, use of protective clothing etc, and using computer software to generate the forms. In Science, the module Structure and Force based on the Science in Process scheme is followed. The theme of Friction is studied and linked with braking distances, speed and acceleration. Extension work on structures such as crash helmets and crumple zones in cars may be covered if time permits, and discussion has taken place on linking work on reaction times to this module.

In the second trial year the Mathematics and IT departments combined to develop work using a pack of road accident statistics in the form of a database. These can be interrogated by pupils to help satisfy both the Mathematics AT5, and part of the handling information section of the Technology AT5 information Technology Capability.

The school has identified other possible areas of development: the use of music to enhance the promotion of road safety, the reintroduction of Drama, extra work in Science on reaction themes, extra PSE follow-up through the tutorial system, and more involvement of the English and tutorial staff in the original stimulus so that they are in a better position to develop work from it, and a road safety campaign poster around the school to highlight the work. Obviously however, it must be appreciated that there is a limit to which departments can contribute to such an initiative, constrained as they may be by time and the demands of the National Curriculum.

7.2 CROSS-CURRICULAR

The follow-up activities in this school were essentially cross-curricular, involving staff responsible for personal and social education and those in subject areas, and having a central theme of Road Safety. The links are summarised in figure 12.

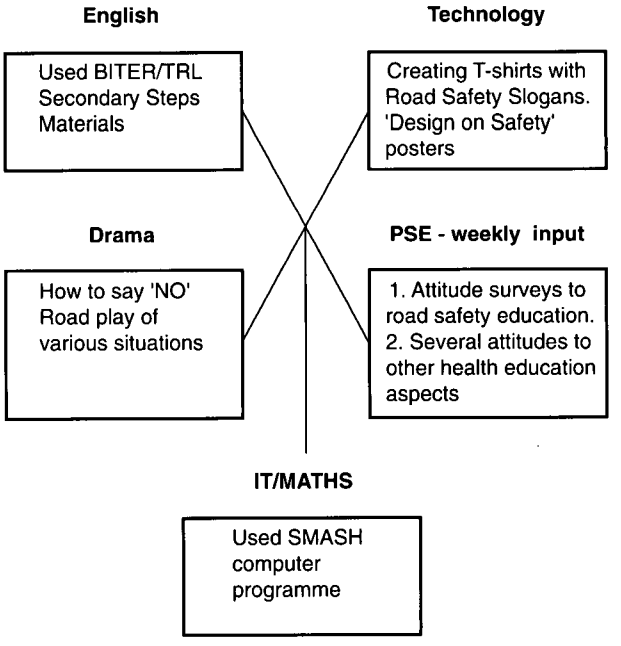


Fig 12 Road safety links to the core and foundation subjects

The group of pupils which designed the road safety logos to print on T-shirts have also suggested promotional ideas for Road Safety packages for junior schools, and have drafted out ideas for videos which have yet to be produced.

Another group selected food safety. They considered the presentation, preservation and packaging in terms of food safety - for example to prevent food from becoming crushed. They extended their study to the safety of kitchen appliances, and produced a "Which" type report on their findings.

All groups of pupils had the opportunity to use the "Smash" computer programme which was a useful activity promoting considerable discussion.

7.3 DRAMA AND PRIMARY SCHOOL LINK

Following the presentation by the SNAP theatre company a group of sixth form pupils from this school created their own drama production as part of their examination course. It was based on an accident. A boy is given protective clothing as his birthday present, when he really wanted a computer. When he wears the clothing, he is the object of derision by his peers, so discards the protective wear and is subsequently killed in a road accident. The police are also

portrayed taking the news to his parents and he is depicted in the background saying that he is sorry. Time is reversed and the enactment repeated, only this time he stands up to the jeering by his peer group who are thereby convinced of the importance of safety equipment. The drama concludes with an excellent rap song telling of the need to be careful on the road.

The performance was shown to a mixed age group of boys and girls from one of the feeder primary schools, where the pupils had already held a workshop. It was hoped that other feeder schools might see it.

This was an excellent production, having important concepts of road safety which are often more powerfully put to younger pupils when they see older pupils who believe in them. It was also recorded on video, and would be very useful shown at Parents' Evenings, where the lesson of protective equipment often needs to be emphasised.

Some extremely powerful messages came from the pieces of writing composed by pupils in their English lessons, box 10 shows examples.

7.4 ENGLISH

In one school where it proved impossible for the follow-up to 'Go for It' to become a cross-curricular matter, it became the province of the English department which devoted the three weeks following the performance to working on related material. Under the direction of their English teacher, it was decided that each form would work towards a

BOX 10

Poems written in an English lesson.

Gone?!

Round the corner on his bike
Going rather fast.
Niall speeds as a dare
But the die is cast.

Face to face with a car
Hear the screaming brakes
A loud bang and a crash
As the ghost awakes.

Policeman with a dreadful
task.
Parents to be told
He must, he will be bold.

There's been a terrible accident
The home a tomb of silence
Parents stiff and distressed
He spoke with defiance.

Leave the house, mother
crying
From shock, despair and fear
He was only thirteen
When he was taken from here.

Accident!

Happy Birthday! It certainly was.
His first bike came that day
He went outside to ride it
Content in every way.

No-one knew the sorrow or
The pain that it would cause.
If they had, the givers of
The bike would have paused.

The Accident

Niall! Niall!
Its for you, Everything you wanted
Extra fast gears, metallic frame
Off you go now. Careful! Careful!

Bumper car, bumper car
Number 48
Whizzing round the corrrrrner ...

Shall I? Shall I?
Go on! Go on! Chicken! Chicken!
Shall I? Shall I?
Go on! Go on! Chicken! Chicken!
... Slamming on the brakes!

CRASH! ! ! ! ! !
I only watched. I only watched.
I only watched. I only watched.
I only watched.

He's gone, why didn't I stop him!
My son!
My friend!
My brother!
He's gone! Forever! Forever!

presentation of both drama and a static display. The work was to be principally pupil-directed, although suggestions were given to them concerning the possible areas they could explore and consideration given to the demands of the National Curriculum. Issues raised by the performance and the workshop were fully discussed in class and certain areas of interest were particularly popular - the effect of peer pressure, issues involved in risk-taking and decision-making, the effect of tragedy upon all those involved, the idea of 'passive persuasion', the way in which drama can be structured, and the effect of the day upon individuals.

Each form then decided its own approach. One form decided to apply the issues involved to bullying and worked together to produce a whole class play on this topic. Other classes divided themselves into smaller groups to produce monologues, a rap, and plays on smoking and drug-taking as well as dramas linked more closely to the original stimulus material such as presenting the characters involved in the play from a different angle. In conjunction with this improvisation work, members of each class also produced a variety of written work. This was also pupil-based, although suggestions were made concerning possible areas of exploration. A variety of work ensued - play scripts, letters from Niall's family and friend after his death, police reports on the incident, poems about the issues and the reaction to the play, board games based on the concept of risk-taking, stories on a similar theme, diaries, and newspaper accounts, some of which made use of IT.

At the end of the allocated three period, each form selected the dramatic items they wished to present in their allotted time of ten minutes and the written work displayed. This included the poems shown in boxes 11 and 12.

The following account appeared in the subsequent monthly junior school magazine (box 13).

7.5 ENGLISH AND TECHNOLOGY

At the school chosen as the residency for the Snap Theatre, the Project Coordinator held a briefing session with a team of staff whose role was to support where possible, any associated project of a cross-curricular nature. Accompanied by the school coordinator, the Project Coordinator spoke to representatives from the English, Technology, Science, Personal and Social Education/Health, Humanities and Mathematics Departments. As a result, there was agreement on how, when and where the road safety education project would be extended. The only representative who felt unable to develop work around a road safety theme was from the Humanities group because, at that time, much Key Stage 3/4 reorganisation was taking place in the National Curriculum. The other representatives felt that their respective curriculum areas could include the activities shown on figure 13.

BOX 11

Poems by pupils selected for exhibition (i)

Go on, I dare you to

Go on, I dare you to
It's really not that hard
The story of an eight year old
Who played dodge with a car.

Go on I dare you to
You're a chicken if you don't
The story of an eight year old
Who couldn't say I won't.

Go on, I dare you to
Your mum'll never know
Quickly, quickly, don't be scared
That's it, come on. Go!

It wasn't my fault, honest
It was just a stupid dare
I was only watching
I didn't really care.

Effects

All the family came together, dressed in black.
For you, for your funeral.
Friends dared you to run across
That uneven road near the corner shop
Cars come racing round and don't notice you.
Tragic if people think back to what happened.
Slowly you drift away into an endless sleep.

7.6 TECHNOLOGY

It was decided that the work following-up the Snap Theatre performance in this school should take place in the Technology Department. After meeting the Project Coordinator, the staff concerned decided that the projects to be undertaken by pupils of Year 7, within the context of road safety education, could cover:

Promotional products

hats, carrier bags and badges

Being seen

hats and other clothing

Learning and teaching aids

Leaflets

Posters

Food on the move

BOX 12

Poems by pupils selected for exhibition (ii)

The Policeman's Story

I stood there watching them take the body away.
Suddenly I began to pray
For the young boys' parents
The shock of seeing him lying there
Blood all over his face and hair
Made me think how they would cope without him
It was I who would have to tell his mum
Of this foolish thing that he had done
Playing on the road had cost him his life.

I knocked on the door and waited
How could I tell them their son was dead
Niall's Mother opened the door
At that moment as I told her I froze
I watched the tears run down her cheeks and nose
I took her inside whilst the other officer made tea
She rang her husband and told her daughter
I took her to the station where others could talk to her
Playing on a road had cost him his life.

The Dare

People shouting
Pressure mounting
Daring jeers
Shall I?
Chicken! Chicken!
Go for it!

Starts to go
Nearly doesn't
But stops
Come on chicken
Make your mind up
Right. I'll go.

Decision made
He takes the dare
Too late!
Car comes round the corner
Slams on brakes
But its too late.
He's gone.

Life's upturned
Accusations
Crying
Shouting
Backing away
Now he's gone.

You should have stopped!
You dared him!
You knew what he was doing
You could have stopped him
You! You! You! It's so stupid!
stupid! stupid!
He's gone.

The Road Safety Unit had provided the Department with a variety of resources. These were well displayed and available for pupil use, and staff had prepared careful design briefs.

Within the textile area, pupils were imagining that they were designers working for "Free Wheel" and had been asked to design a new range of protective clothing for cyclists which would be attractive to the 11-14 years age group. This brief involved listing all the types of protective clothing for cycling at any time of day or night, decided on the item to be designed, and researching catalogues and brochures to see what was already available, and the price, and listing the most important points to be considered when designing the chosen item.

Pupils working in the graphics area were concerned with the preparation of a television advertisement based on a road safety theme. In groups, pupils were deciding on a storyline for which they were writing the script, leading to the production of a storyboard, which could be made into a video. This assignment involved a study of a television commercial and its purpose, and researching appropriate road safety information to be included in the project.

Food groups were working on food technology and road safety. They looked at such aspects as the transportation of

BOX 13

School magazine account of Snap Theatre day

Go for It

On Friday, 2nd October, Snap Theatre Company came to school to spend a day with Year 8 on the subject of Road Safety. After expecting the usual "You must be careful when you cross the road!" I was very surprised to start the day by talking about decisions and risk-taking, and acting out little sketches.

After this we saw the play about a boy called Nial and the way he was pressurised into playing chicken on the road and all the consequences. It was a really good play, but it was quite confusing as it showed the effect on everyone after Nial's death.

After the play we discussed it, and then went back to the New Hall. There the company played games with us, using the theme of risk. Then they got out the ramp, and, using people from the forms, they asked them to run up the ramp and jump off the top. Before they were allowed to try, the theatre director picked some people to lie at the other side of the ramp for the people to jump over. He went through the people who were going to jump and each time they said yes, another girl was added to the other side of the ramp.

Everyone who was watching cheered them on and put pressure on them. It was showing us that the pressure we were putting on the people who were going to jump the ramp was as great as the pressure that had been put on Nial in the play.

It was a very entertaining and well-used day. I hope that I can do something like this again one day.

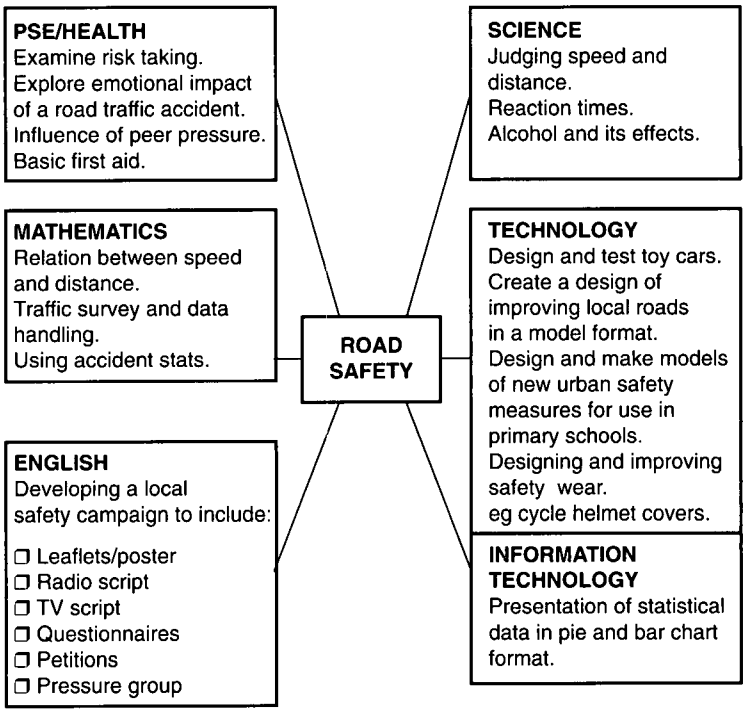


Fig 13 Opportunities to deliver RSE

foods as exemplified by packed lunches for long road journeys, cycling clubs etc., correct disposal of discarded foodstuffs and packaging to avoid their presence in footpaths causing an accident, the special nutritional needs of those injured in accidents and foods which could be decorated to advertise road safety.

Pupils in other design and technology areas were working on the theme of "Being Seen". This involved the application of thermoplastic material to put warning strips on various items of clothing, designing safety helmets carrying covers with appropriate slogans such as "Going Faster - you'll end in plaster", and "Wear a hat - or you'll be splat", and carrier bags.

One group had prepared squares of wood with interlocking sides, painting each one to represent a section of road carrying for example, a dual carriageway, bollards, roundabouts, junctions and pedestrian crossings. These could be interlocked to form a large road plan, and had been made to the Lego scale, so that Lego cars and figures could be used to simulate typical road scenes. It was anticipated that this resource would be taken to the adjacent feeder primary school to demonstrate road safety situations to the pupils.

7.7 PERSONAL AND SOCIAL EDUCATION. TECHNOLOGY/ ART

In this middle school, the performance by the SNAP Theatre group was followed by a series of assemblies which concentrated on safety aspects as part of the personal and social education work, and at the same time, development work was taking place in Art and Technology. The first assembly was based on the "SMASH" computer programme and involved the whole year group working in the hall, which had been set up to simulate an accident room. Working in small groups, pupils had to draw their own conclusions on the causes of the accident, present them to their peers, and suggest ways in which future accidents in the locality could be prevented. The second had a theme of cycle safety and included a short dramatic presentation of an accident by the pupils, checking a cycle, the wearing of appropriate safety clothing including helmets, and a video of the pupils arriving at, and leaving school, to illustrate the dangers which lie beyond the school gates. This would be used to stimulate much fruitful discussion in personal and social education lessons, including, as it did, such examples of risky behaviour as crossing a road without looking. The third was concerned with risks, decision making, and the effect of peer group pressure demonstrated by video recordings and a very well presented dramatic presentation by the pupils which had "Saying No to Drugs" as the theme.

These assemblies were subsequently modified and shown to other year groups in the school, and Years 5/6 participated in a safety week where the road safety work was based on "Survival Code" video and worksheets. At the same time the road safety education theme was being followed in Technology and Art. In the former, pupils were making models to suggest different layouts for the road outside the school to improve safety, a tractor model which gave a warning signal when it was tipping over, so would improve safety in farming, 40 mph signs for the road which would illuminate on the approach of a car, three forms of barrier for a railway crossing, which would 'sense' a train coming, a fun fair wheel, and burglar alarms. In the latter, pupils discussed the symbolism of the Picasso painting "Guernica!, before embarking on pictures of their own, using a wide variety of media, which were to make a statement on a road safety aspect. In the course of composing these pictures, they also used a computer Art programme to design and print materials off the computer which could be added to their compositions.

Proposed follow-up work in other curriculum areas is shown on the planning sheet in figure 14.

7.8 OTHER EXAMPLES

The first example is a partially residential school for emotionally disturbed girls covering the age range 11-17 years. The nature of the school means that all core curriculum subjects are taught in a cross-curricular mode, with personal and social education featuring strongly throughout. This was reflected in an accident story board which included work on causes and consequences, discussions about saying NO in different situations and consequent role play. Written work involved extending the characters in the Snap Theatre production, and imagining the short and long term effects of the accident upon them. Pupils also wrote examples of witness statements following an accident. A computerised model of traffic lights and various types of crossings was made, and pupils compared English and French road signs, which were then redesigned and displayed.

The poem in box 14, written by two girls aged 11 and 13, reflects the immediate impact of the production.

Although the previous school activities have been discussed in some detail it must not be assumed that these represent the total sum of work which took place.

Another school produces a weekly update on the latest school news which is distributed to parents and friends. Following the Snap Theatre presentation to Year 8, an account of the Road Safety Day and the workshops was printed in the weekly update together with a selection of comments from the pupils and staff who were present. Student comments included the following:

- "The day was a good way of putting over the point."
- "They showed the consequences of playing on the roads."
- "It wasn't just about road safety, it was about risks."
- "I learnt that listening to my friends is not always the best thing."

and those from the staff:

- "Everyone found something to think about. The students eagerly participated in all the set exercises: it was well worth it."
- "The theatre was excellent."

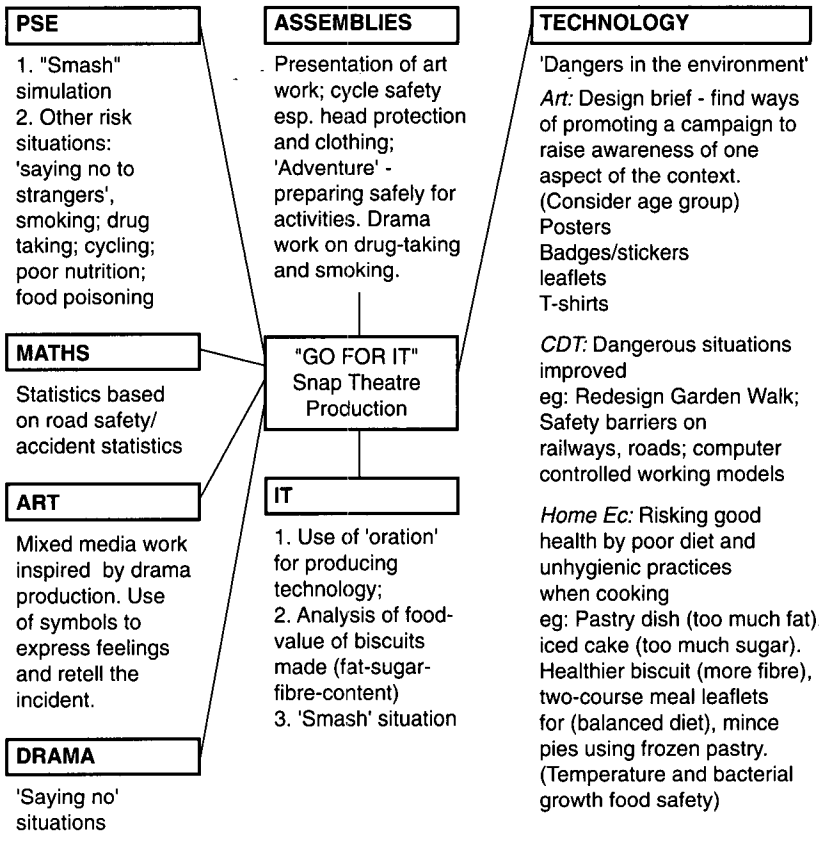


Fig 14 Planned assemblies and follow-up work

- "It was nice to have experts working with the students on an important subject that the students can be blase about."

As a direct result of the Snap Theatre performance to Year 7 another school collated its own unit on 'Safety' to be included in the Personal and Social Education programme in future. Four topics were included with worksheets for each. The topics were:

Risky Jobs and Risky Pursuits.
Safety in the Home.
Safety in School.
Safety on the Roads.

The objectives for 'Safety on the Road' were:

- Awareness of some of the causes of accidents on the roads.
- Understanding the ways accidents can happen.
- Developing responsible attitudes and safety skills.

The accompanying worksheets involved cyclist and passenger safety, safe things to do and hazards to avoid on the roads, a road safety quiz, knowledge of road signs and their meanings, and writing a story or a play covering an accident where people had ignored safety warnings, taken unnecessary risks or been unaware of possible danger.

BOX 14

The two girls' poem.

The Birthday Boy Who Was
There once was a boy who had a party
For his birthday he was given a bike
He cycled from left to right
To show his friend his brand new bike
He did not listen to wise advice
That his mother and father had told him twice
To stop think listen and look
About information in his road safety book
His friends all dared him to take a chance
To zoom across the road at once
Suddenly all in a dash
His life was taken in a flash
Alone he lay stiff and cold
Never to be growing old.

A fourth school was set a design brief to carry out a feasibility study for building a leisure centre on the school site. Apart from the obvious design of the building, consideration had to be given to the effect on the local environment and existing road patterns. A local RSO, and a member of the engineering department presented a brief description of the considerations that each of the eight working groups within the Year 9 group, had to address before submitting a draft proposal. Once completed, these proposals were given an approximate costing by the engineer. Other activities associated with this programme included speed surveys, using the radar gun, data collection and processing, the preparation of a draft questionnaire and information leaflet for local residents.

In the curriculum areas of other schools a variety of work occurred, centring on the theme of road safety education.

Art/Design had encompassed various posters illustrating the emotional impact of a road traffic accident, visual work which targeted various age groups such as children and the elderly, publicity material for road safety education, lettering work on posters, designing a publicity campaign for road safety education, "Graffiti" posters which revealed the immediate impact of the Snap Theatre production, composing cycle safety slogans, and redesigning cycle safety wear.

Technology had embodied work on cycle safety wear such as kneepads, gloves, helmet covers, and cycle carrying bags, artifacts with a road safety slogan, designed and made a safe routes to school leaflet for the new pupil intake, and produced a shadow theatre play for road safety education in primary schools.

Mathematics revealed work on speed surveys using a radar gun, road safety board games and modelling an engineering solution to a traffic problem, both with a mathematical basis.

English contained examples of role play for accident situations, examination of the consequences of road accidents, slogans and the composition of poems and prose around accident aspects, discussion of the legal and moral responsibilities for road safety education, and the techniques required for a public enquiry into an accident such as interviewing, recording, reporting and discussion.

Music departments had composed road safety "raps", and prepared a publicity campaign to be used for advertising on TV and radio.

Geography contained a study of a local traffic issue, producing questions for a public enquiry, and examining the environmental impact of a road system.

Information Technology/Business, Economic Education had considered the influence of advertising on risk taking, the costs of accidents and the costs and benefits of engineering measures.

This evidence of the inclusion of road safety education in a wide field of curriculum studies clearly supports the belief that it can easily be included in subject work appropriate for the requirements of the National Curriculum.

8. GOOD PRACTICE IN HERTFORDSHIRE

The success of the demonstration project in Hertfordshire has depended on the support and enthusiasm of all the participating schools and officials, and especially upon the efforts of the Project Coordinator.

The County Adviser for INSET writes:-

"The project has been extremely valuable and worthwhile by increasing the awareness of how road safety can support and enhance the curriculum of all schools. It has furthered co-operation between all agencies and has strengthened much of the work associated with them.

All those involved in the programme need to be congratulated on their professionalism in developing the demonstration project and their enthusiasm and commitment to the many and various tasks. I am fully confident that the key elements for good practice will remain within the Authority for some considerable time to come."

The Head of the Road Safety Unit stated:-

"The project has been extremely valuable and worthwhile as it has enabled us to progress and expand the direction in which we were already heading. Present working practices have been assessed and changes, albeit at times a painful experience, implemented. Work loads have remained quite heavy although they now appear to be much better organised as a result.

One of the most pleasing outcomes of the project is the way that the RSOs have come to terms with the "enabling the enabler" approach and have been able to develop some exciting INSET sessions of their own. Indeed many have voiced the fact that the project has helped them to focus more clearly on the direction of the educational development work within the Unit.

It was always envisaged that the project would provide a model which could be used in the remaining education divisions in the county, and the overwhelming success of the county-wide implementation to date, provides real evidence of the excellent foundation developed in the project area.

Having said that, there is still a great deal of work to be developed and very little room for complacency. The primary INSET model with workshop support must reflect the on-going national curriculum changes, whilst the secondary programme needs to reflect the changing world of

the young adult. The pro-active nature of our work is of paramount importance if we are to have any effect on the work of the education system."

A senior engineer writes:-

"As part of the project, a number of schools were encouraged to develop work around an urban safety management scheme. Many of the problems stem from a lack of knowledge by drivers, parents and children as to the dangers of speed. Indeed, our research showed that it was common practice to drive between 35-40 miles per hour in a 30 miles per hour limit.

Following an INSET session organised by the coordinator and the engineer for the affected schools, a teachers' pack was devised, which illustrated how investigative techniques used by safety engineers could prove to be a useful source of project work. Various exercises such as speed and traffic volume surveys, site visits and table top designs were undertaken by the children. Some of the latter included comments by the safety engineers themselves. Overall I have found that the use of traffic calming measures, aligned with school-based training goes a considerable way towards the increase in road safety education and augers well for the future."

The school governor representative on the Steering Group writes:

"I am delighted to have been able to give my support to a project that has given emphasis to this vital area of the curriculum. As a school governor I am increasingly aware of how some issues can be 'put to one side' if it is considered to be of a lesser importance that any other; particularly with the current level of change taking place in education.

The project, however, has addressed this concern in highlighting the key road safety issues for all of the schools involved. In doing so it has begun to prepare the ground for governing bodies to be in a much better position when formulating their schools' road safety policy.

I am fairly confident that once this has been achieved, road safety education will have a well defined place in the school curriculum."

A member of the road safety officers' team stated:-

"Initially, there was some apprehension at the prospect of a new approach and method of working, but the rapid establishment of good relationships with the Project Coordinator, and the realisation that the project was going to be exciting, and stimulating, soon dispelled this fear of the unknown. As a result of the project, the professional status of RSOs has increased, both in their own eyes, and those of teachers. They are now perceived, both by themselves and teachers, as being more confident in all the work they undertake, more flexible in their approach, ready to respond to the greater variety in demand that is made by the schools, and their inputs are more relevant and have greater breadth and depth than previously. Gone is the same package of talks given in every school irrespective of the particular needs of an individual school, and in its place is an input tailored to needs expressed by the schools which involves disseminating appropriate ideas to teachers. As a result, there is an increased awareness amongst teachers of the nature of road safety education and the role of the RSO.

The RSOs' knowledge of classroom practice, the National Curriculum and its implementation in the school, presentation and management skills, assessment and evaluation has been considerably increased by the project, and the quality of staff training it has necessitated. They have had time to look in different directions, question what they do, begun to realise their own potential and learn to trust others to impart what has always been regarded as 'their' information.

The traditionally defined areas of work for different RSOs have become the province of the Road Safety Unit as a whole, and the infiltration and changes taking place in road safety education in the preschool phase would not have happened without the influence of the project.

RSOs now see their role as enabling teachers and schools to include road safety education in appropriate activities, and persuading them to realise that much of the work they are being asked to include, is already contained within their lessons, but it needs identification."

A school police liaison officer expressed his opinion:-

"The project has been an excellent innovation, because it is concerned with realism, has forced students to think through actual dangers and risks, and is interactive. It has given me increased opportunity to act as a 'resource', as exemplified by the help given to students in the sixth form of a school to create their own theatre production, and answering questions on what happens at the scene of an accident - reports, interviews etc. - which assists in the understanding of the role of a police officer. The project has forged for me a closer working relationship with the Road Safety Unit, and this augurs well for the future, as much work still remains to be achieved."

The personal and social education adviser writes:-

"The 'GO for It' project is exciting and innovative. The value of the use of theatre and drama is recognised but this project provided students with a greater level of involvement and demanded more realistic decision-making than any I had previously seen.

The standard of performance and workshop was extremely high. The writer and director has a natural flair for working with young people and because of the involvement of both staff and students, the project was an INSET event as well as a student stimulus.

The success of the project owes much to the energy, skills and persistence of the Project Coordinator. By involving a wide range of professionals and students in its development

and by helping schools to anticipate its impact and plan preparation and follow-up activities, he ensured that road safety became firmly embedded in school practice.

Schools which had previously paid lip service to road safety education have planned cross-curricular provision which challenges the imagination, stimulates creativity and gives opportunities to examine influences on behaviour. The pilot showed that many schools sustained elements of the cross-curricular work throughout the school year and have built it into curricular planning for future years.

The greater emphasis on staff training in the second year of the project was a result of thorough evaluation of the pilot and ensured an even greater degree of success.

I hope that funding will be available to continue this valuable work."

The writer and director of the 'Go for It' programme, expressed himself as follows:-

"As writer and director of the GO FOR IT programme, and active in delivering it to young people, I was in a unique position to see how effective drama can be, both in performance and in workshop, in getting young people to think about what they would do when entering a risk situation. Getting young people to be aware of how they act and how they react, is perhaps one of the most important things to come out of what was an intensive project that thoroughly involved the young people in the issues of road safety. After taking part, I do not think anyone could say that road safety is boring or that it has nothing to do with them. We demonstrated vividly that road safety can be dealt with imaginatively and that it can involve everyone."

A secondary head teacher writes:-

"Road safety education continues to be an extremely relevant vehicle (excuse the pun) for worthwhile cross-curricular teaching. It is particularly useful in helping to deliver Science, Design/Technology and Information Technology. The booklet "Investigating Road Safety" not only demonstrates ideas in breadth, but also gives class teachers the opportunity to focus."

Following a workshop session, the head teacher of a primary school wrote in appreciation:-

"Many thanks for your informative workshop session. The staff wanted me to express our appreciation to all those concerned in the workshop and the production of the materials. All those involved are to be commended for their down to earth and practical approach which can be readily incorporated across the curriculum. Teachers found the ideas and resources easily accessible and enjoyed using them. At a time when we are inundated with folders, statutory orders, programmes of study, directives et al, it is refreshing to receive something that can actually be used in the classroom."

The project coordinator states:-

"Throughout the project the schools have displayed a sense of commitment to road safety education which has been built upon a secure foundation of hard work carried out by the Road Safety Unit since its inception in 1979. Indeed, the efforts of the road safety officers, engineers, police, community agencies, advisory staff, teachers, parents, governors and others, are reflected in the total commitment to road safety education throughout the county. Although I have come to the end of the project, I have been fortunate enough to be able to stay with the Road Safety Unit and extend the project model into the rest of the county.

Improvements in Phases I and II of the primary development have meant that to date - December 1992 - some 76% of the remaining primary schools in the county have completed the school-based INSET session. Further, many of these schools have opted for, and received, a further workshop support for all teaching staff. This has all been completed in approximately 12 working months, and all the sessions have been presented by road safety officers.

Throughout the project I have felt that road safety education can and should provide a relevant context for classroom work. Moreover, opportunities within the National Curriculum now abound, and authorities should therefore give serious consideration to the planning of possible INSET for all schools within their area, if they are to grasp these opportunities and provide road safety education as an entitlement for all pupils.

In secondary schools, the drama production has completed a second tour. All schools involved received a one and a half to two and a half hour INSET session, prior to the tour, to provide the necessary framework for a successful day, and good subsequent follow-up work."

9. CONCLUSIONS

Experience in Hertfordshire has shown that road safety education can provide a real and very relevant context for the delivery of the National Curriculum. To be effective, and to maintain progression, road safety education needs to be drip fed into the curriculum, with pupils receiving small, but frequent, regular and purposeful inputs. Without this, road safety education may lose much of its effectiveness and so become marginalised. The road safety officer needs to be aware of the fact that to maintain this process a proactive style of leadership must be adopted. This, in turn, needs, not only to be imaginative, but also to reflect an air of realism, sensitivity and awareness to current pressures within primary and secondary schools.

Consideration, therefore, needs to be given to the following conclusions:-

- School-based INSET in primary schools, and in departments or faculties of secondary schools is by far the most effective way of promoting good practice in road safety education.

- Road safety officers, and their opposite numbers in the education department need to work together so that common philosophies and practices can be shared. INSET skills need to be refined and this can be very effectively achieved when the professional skills and advice of the education department are sought out, and acted upon.

- Road safety officers should take the lead in establishing and maintaining liaison with other support agencies, such as the Police, Health Promotion Officers etc.

- Evaluation and record keeping of all work undertaken should be a priority, whether it be in conjunction with education coordinators for evaluation in schools, or in-house when particular evidence is required by the senior management within the road safety department to monitor projects.

- Established links need to be maintained with the Education Department, and experience has shown that these links should be accessible at all levels.

- There should be an on-going commitment to staff training which keeps pace with current educational changes, whether such training be on a localised or regional basis.

- There were shortcomings in the original model for road safety education proposed by TRL and a more diverse and practical model has been developed.

- Needs and opportunities are constantly arising for the further development and updating of road safety education, some of which may, or may not, have been assessed during the course of this three year project.

Most importantly, authorities planning similar projects must remember that the outcome depends on the commitment and co-operation of all the people involved. In Hertfordshire, the project has received tremendous support. Road safety education needs champions if it is to be effective: the experience of this project points to the ability of the RSO service to undertake the role of principal champion. Working with the Highways Department the RSO can identify potential accident problems as they arise. Backed by the resources of the Highway Department RSOs can promote road safety to the other local agencies concerned with health, environmental and economic education. With the educational agencies the RSO can provide attractive and appropriate INSET for teachers and so reach all the children in the area. It is difficult to imagine this role being undertaken so completely within the existing UK local government structures by anybody other than the RSO.

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Pupils, teachers, parents and governors of project schools.

Hertfordshire Education.

Hertfordshire Transportation Department.

Hertfordshire Constabulary.

Hertfordshire Health Promotion Officers.

Members of the Steering Group.

Road Safety Staff.

APPENDIX A: ROAD SAFETY EDUCATION AND THE CURRICULUM

A.1 THE ENTITLEMENT

The Education Reform Act 1988 establishes the legal right of all pupils in maintained schools to "a balanced and broadly based curriculum which -

(a) promotes the spiritual, moral, cultural, mental and physical development of pupils at the school and of society; and

(b) prepares pupils for the opportunities, responsibilities and experiences of adult life."[3]

National Curriculum Council Circular No. 6 states that:

> "the basic curriculum (the nine core and foundation subjects plus religious education) ... is not intended to be the whole curriculum. The whole curriculum of a school goes far beyond the formal timetable. It involves a range of policies and practices to promote the personal and social development of pupils, to accommodate different teaching and learning styles, to develop positive attitudes and values, and to forge links with the local community".

The Department for Education core and foundation subject orders state that pupils should be provided with real and

3 Education Reform Act 1988 c. 40, Section 1 (2) (London, HMSO)

relevant contexts for their learning. These statements have significance for road safety education which:

- prepares pupils for the responsibilities and experiences of adult life as users, citizens or managers of the road environment;
- provides a real and relevant context for work across the basic subjects of the curriculum;
- makes a significant contribution to the wider curriculum of the school;
- forges links between the school and the wider community which includes links with public services, business and industry;
- meets the needs of pupils in keeping themselves and others safe, now and in the future.

Within the terms of the entitlement curriculum outlined in the Education Reform Act, road safety education serves the following needs of children:-

- to know how to keep themselves and others safe, now and in the future;
- to have a knowledge of the road environment and how it functions;
- to know how to influence the changes in that environment.

In order to address these needs we have to ask questions such as "What attitudes, values, knowledge, skills and experiences will they need in order to achieve this?"

If, for example, they need to have a knowledge of the road environment and how it functions, how do we meet this need? We must then keep asking how until we can actually define the educational experience that will meet the need, and it is here that the curriculum is brought in to serve the needs of the pupil.

The National Curriculum Council sought to serve the needs of the child by doing exactly that across the curriculum. It defined the areas which constitute the preparation for the entitlement curriculum described above. In order to fulfil the requirements of the entitlement curriculum, thereby addressing the needs of the child, it identified the cross curricular dimensions, themes and skills which help to form the breadth and depth of the whole curriculum[4]. It is at this high level that health education and road safety education were identified specifically[5] as well as those other elements that influence road safety[6] .

It is through a consideration of the attitudes, values, knowledge and experiences a child will need in each of these areas that a scheme of work can be developed involving the National Curriculum core and foundation subjects. The National Curriculum Council identified the subjects as a set of tools whose role is to help fulfil a much higher function. Road safety education is part of this higher function and therefore it too should relate to the foundation subjects in a similar way.

It is only by realising the real relation between the Whole Curriculum, the National Curriculum and Road Safety Education that the latter can achieve its rightful place within the curriculum of the school.

A.2 ROAD SAFETY EDUCATION AND THE BASIC CURRICULUM

The following extracts are taken from the documents describing the National Curriculum subjects as they were during the project (up to 1993). The extracts are intended to illustrate further the relation between the curriculum subjects and road safety education. Many more such examples may be found within the curriculum documents.

Science **(Science in the National Curriculum NCC)**

Programme of Study for Key Stage 1.

> "Science in everyday life: as pupils begin to mature and gain increasing knowledge and understanding, they should be given the opportunity to develop an awareness of the importance of science in everyday life including its relevance to personal health and safety. This awareness should be encouraged through visits. Pupils should use a variety of domestic and environmental contexts as starting points for learning science."

These concepts are continued and progressed through Key Stage 2 and Key Stage 3 to Key Stage 4 (below).

Programme of Study for Key Stage 4.

> "The application and economic, social and technological implications of science: pupils should be given opportunities to develop awareness of science in everyday life. Building on earlier experience,

4 Cross Curricular Guidance 3. The Whole Curriculum NCC.

5 Cross Curricular Guidance 5, Health Education NCC

6 Cross Curricular Guidance documents - 7. Environmental Education; 8. Citizenship; 4. Economic and Industrial Understanding; and 6. Careers NCC.

breadth of knowledge and understanding, and increased maturity, they should study how science is applied in a variety of contexts, including the significance and operation of communication devices which handle large amounts of information. They should use their science knowledge and skills to make decisions and judgements concerning personal health and safety. They should consider the effect of scientific and technological developments, including the use of information and control technology on individuals, communities and environments. Through this study, they should begin to understand the power and the limitations of science in solving industrial, social and environmental problems and recognise competing priorities."

***Technology* (Technology in the National Curriculum, NCC)**

".... Technological capability will enable citizens to cope with a rapidly changing society, and meet the challenges of the twenty-first century" (Non-Statutory Guidance).

"Pupils should be able to identify and state clearly needs and opportunities for design and technological activities through investigation of the contexts of home, school, recreation, community, business and industry." (ATI)

***Geography* (Geography in the National Curriculum, NCC)**

"Geography is concerned with the study of places, the human and physical processes which shape them and the people who live in them. It helps pupils make sense of their surroundings and the wider world." (Non-Statutory Guidance.)

"Pupils should be taught:

* to compare different transport networks and the effects of changes in these networks

* to consider the advantages and disadvantages of forms of transport, and how these change as a result of technological and other developments."

(Programme of Study - Human Geography - Key Stage 3.)

***Mathematics* (Mathematics in the National Curriculum NCC)**

"Mathematics provides a way of viewing and making sense of the world. It is used to analyze and communicate information and ideas and to tackle a range of practical tasks and real-life situations." (Non-Statutory Guidance).

"Pupils should engage in activities which involve:

* specifying an issue for which data are needed; designing and using observation sheets to collect data; collating and analyzing results." (Programme of Study -Handling Data.)

For further details of classroom activity see the Programmes of Study.

The cross-curricular themes of the National Curriculum

The following extracts are from "Curriculum Guidance 3 - Health Education" (NCC). These serve as an example of the many strands to be found within the different cross-curricular themes which are able to make a contribution to road safety education. Many more such examples may be found within the other Curricular Guidance documents.

There are nine components suggested by NCC which constitute a health education programme, many of which have implications for road safety education. The following are the descriptions of two of those components of most relevance to Road Safety Education - 'Safety' and 'Environmental Aspects of Health Education'.

"Safety

The acquisition of knowledge and understanding of safety in different environments, together with the development of associated skills and strategies, helps pupils to maintain their personal safety and that of others."

"Environmental aspects of health education

An understanding of environmental aspects of health education, including social, physical and economic factors which contribute to health and illness, helps to raise awareness of environmental health issues, avoid unnecessary risks and promote good health." (Curriculum Guidance 3 - Health Education NCC.)

Within the 'appropriate areas for study' in Health Education the following have particular relevance for Road Safety Education:

Safety

Key Stage 1

- "Know the potential dangers in different environments, e.g. road, water home.

- develop and be able to practice simple ways of keeping safe and finding help."

Key Stage 2

- "be able to keep safe, and use basic safety procedures, be able to accept responsibility for the safety of themselves and others;

- acquire a knowledge of, and be able to practice basic first aid."

Key Stage 3.

- "be able to analyze and assess situations in terms of safety, and know that individuals play an important part in the maintenance of safe, healthy environments,

- become aware of rules and legislation relating to health and safety."

Key Stage 4

- "investigate and be able to demonstrate safe practices in various environments, e.g. home, school, work, road;

- know and understand the effects of medicines, tobacco, alcohol, drugs and fatigue in relation to accidents;

- know and understand specific safety issues relating to groups such as the very young, elderly people and people with disabilities."

Environmental aspects of health education

Key Stage 1

- "know that there is a range of environments e.g. home, work, school, natural, built, urban and rural;

- know that individuals are part of these environments and have some responsibility for their care: develop an understanding of how and why rules are made concerning the school and other environments."

Key Stage 2

- know that within any environment there are people with different attitudes, values and beliefs and that these influence people's relationships with each other and with the environment;

- recognise some environmental hazards and identify some ways in which these may be reduced."

Key Stage 3

- "Understand the impact of the media and advertising on attitudes towards health."

Key Stage 4

- "understand how legislation and political, social, economic and cultural decisions affect health.

- accept responsibility for and be able to justify personal choices and decisions about health; show some insight into other people's lifestyles, values, attitudes and decisions;

- develop a commitment to the care and improvement of their own and other people's health, community and environment".

Psychological aspects of health education

Key Stage 1

- "understand the importance of valuing oneself and others."

Key Stage 2

- understand that individual responses to events will vary and respect other's emotions and feelings

- understand that actions have consequences for oneself and others."

Key Stage 3

- "be able to give and receive praise and encouragement in order to promote the self-esteem and self-confidence essential to mental health."

Key Stage 4

- "appreciate ways in which they can control aspects of their own behaviour and resist peer pressure."

A.3 EDUCATION FOR THE FUTURE

There is need in school for an awareness that while it is proper to begin with the safeguarding of our pupils by teaching basic survival skills, we must attend to the wider issues to be really effective. Children need to be educated for their future as adults. It is the adult perception of a safe environment, and the valuing of behaviour that safeguards others, which will ultimately have the greatest impact on the safety of our children and other road users.

There is a two fold task to be done:-

- to educate our pupils in the appropriate and safe use of the environment

- to provide them with an educational experience that will influence their adult lives, as parents, citizens, users or managers of that environment, in terms of safety awareness and appreciation.

Road safety is a complex and complicated subject demanding complicated solutions. Unless we urgently seek to bring about radical change by employing a cross-curricular and integrated approach to road safety education we shall only be involved in, at best, a containment exercise. Making full

use of the curriculum and involving the local and wider communities helps pupils to understand the road environment and empowers them to bring about change.

Road safety education should play its full part in helping children to acquire the knowledge, skills, attitudes and values that enables them to cope with the probable future and to move towards bringing about the preferable future.

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