

**GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
MINISTRY OF COMMUNICATIONS
ROADS AND RAILWAYS DIVISION**

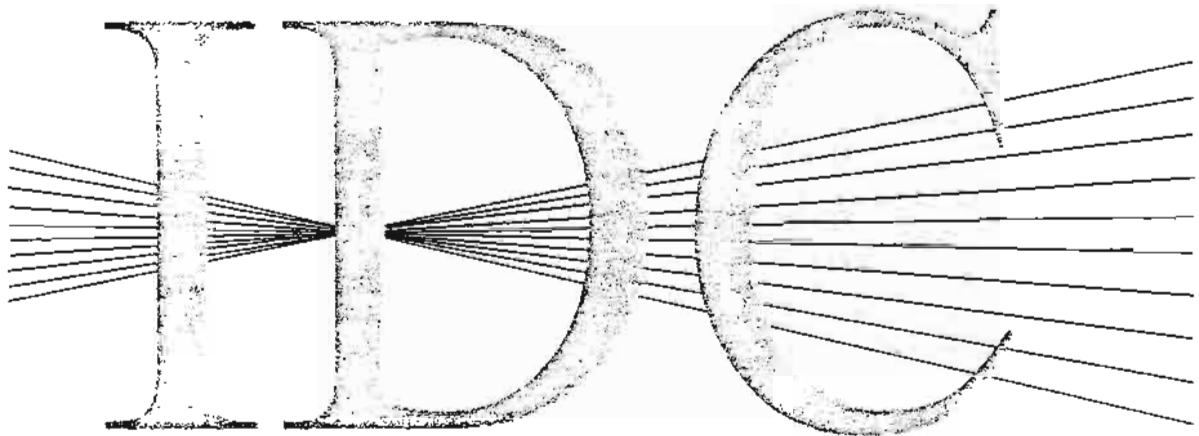
SECOND ROAD REHABILITATION AND MAINTENANCE PROJECT

INSTITUTIONAL DEVELOPMENT COMPONENT

**Development of Road Safety Education Materials for
Lower Primary School Children in Bangladesh**

Final Report

September 1998



Mr A N Hussain
Chairman BRTA
& Head, Permanent Secretariat NRSC
Allenbury
Dhaka.

21 October 1998

Ref: 1/1/1/aqreplet

Dear Mr Hussain,

**Submission of Final Report on Development of Road Safety
Education Materials for Lower Primary School Children**

We are pleased to submit 11 copies of the above Final Report by the IDC Safety Education Advisor Mr Allan Quimby, the second report of the IDC road safety education component. The other report "Children's Traffic Education Materials in Bangladesh" by Kim Smith is also currently being distributed. Mr Quimby works for the UK's Transport Research Laboratory and has worked in a sizeable number of countries on a wide variety of roads safety problems. He was also responsible for the Publicity element of the IDC project.

This report deals with the development of road safety educational materials suitable for teachers of children who are entering Class 1 of Primary School at age 6. The pilot materials were first trialed in a number of schools in Gazipur and modified following an evaluation workshop held with the teachers. Work is under way to improve the figures included in the materials by using a professional artist and producing them in colour.

The materials will then be used more widely in a pilot scheme also taking place in Gazipur. This will use the materials in a large number of schools, both rural and urban. This represents only the first step in a continuing programme. The final objective will be to have properly trained teachers using suitable materials for all age groups of children, in all Bangladesh's schools. We are confident that this long term programme will contribute significantly to improving the problem of road accidents in Bangladesh.

Yours sincerely,



Patrick Gleeson
NRSC Secretariat Coordinator

cc. Mr M McCarthy, First Secretary (Engineering), British High Commission, Dhaka (1)

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EXECUTIVE SUMMARY

In many countries, including Bangladesh, the involvement of children in traffic accidents is a particular problem. Many of these are described as pedestrian accidents as they involve children who are walking or running in the road; often the children are playing rather than making a journey. While there are many potential countermeasures to reduce the numbers of such accidents (such as engineering and enforcement, and educating and training drivers), it is generally recognized that many of these accidents are the result of children having problems dealing with the dangers associated with traffic, and appreciating concepts such as 'safety'.

In order to help children cope with, and survive, the dangers posed by traffic they need to be educated about road safety and taught how to behave in the road environment. While parents and other family members, such as older brothers and sisters, have an important role to play, more formal education provided by schools is also vital. In this context the use of the mass media should also be recognised as an important tool to improve road safety for children.

In order for this education process to be effective it is important that suitable materials and methods are used, that take due account of the child's age (or their linguistic, perceptual, cognitive and social development) as well as the particular characteristics of their environment. Evaluation should play an important role in the development of these materials.

At the moment in Bangladesh there is very little road safety education taught in schools and there are very few materials available for either the children or the teachers. In order to improve this situation the IDC 'Education in schools' component provided for the inputs of two education specialists, each making two visits.

In addition to carrying out a general review of the current situation with respect to children's traffic education in Bangladesh, and making recommendations about how it could be improved in the future, two subtasks were also required. One involved developing and evaluating some road safety education materials; the second involved setting up a pilot project to start introducing these materials into schools. This report deals only with these two subtasks.

The road safety materials that were developed were designed to be used by teachers of Primary School children in Class 1 (entered when aged 6); however, they were evaluated using children in Classes 1 and 2. Children are particularly vulnerable at this age as they start becoming more independent and trusted by their parents; and are therefore more at risk. The first years of formal education provide the ideal opportunity to start the road safety element of their 'social' education. However, it is important to acknowledge that children of this age do not think (or behave) like adults, or have their vocabulary, and therefore need special materials tailored to their particular stage of development.

The pilot scheme involved both training teachers in the use of the materials and introducing them into a sizeable number of schools within the Gazipur District. As a result of this scheme

it would be possible in the future, to conduct a more extensive evaluation of the latest materials, and review how they were being used. While the initial evaluation had been conducted in a relatively small number of schools in urban areas, the pilot project would be introducing the materials into many more schools including some in rural areas as the 6 Thanas in the Gazipur region have both urban and rural areas.

While it is expected that road safety will eventually form part of the national core curriculum, as well as being included in the Certificate of Education (CinEd) course provided for primary teachers, this may not happen for some time. The development of road safety materials for lower Primary children and introducing them into schools in a single area is only the start of a long-term programme that will continue within IDC3.

This report serves as a supplement to a more extensive report on 'Children's Traffic Education in Bangladesh' that: reviewed the education system in Bangladesh; considered accident statistics with respect to children; the current provision of road safety education; provided some general principles for road safety education; and made detailed proposals about how children's traffic safety education could be improved over the next 4 - 5 years.

1 INTRODUCTION

1.1 Background

This report has been produced as part of the Institutional Development Component (IDC) of the Second Road Rehabilitation Project (RRMP2). IDC is funded by the UK's Department for International Development (DFID) and provided for a series of separate road safety inputs by specialists in the areas of:

- Road safety engineering
- Vehicle inspection and safety
- Legislation and enforcement
- Driver training and testing
- Accident data
- Accident costing
- Road safety publicity, and
- Children's traffic education.

These various safety sectors are similar to those contained in the National Road Safety Council (NRSC) Strategic Action Plan, although this plan linked 'education' and 'publicity' within a single sector.

With the exception of the engineering component (which provided for an input of 18 months) these inputs were to be provided by individual specialists making from 1 to 3 short-term visits. In the case of 'education' two specialists were involved, each making two trips. The Terms of Reference (ToR) for each specialist are included in Annex A. These show that one specialist was mainly involved with providing 'Advisory Services', while one was to be more responsible for the 'Development of Materials'.

Their first trips, but not second, took place at the same time - and they both attended many of the meetings that took place in the early stages of the project. This overlap also meant that they could both contribute to the initial development of the materials. Experience in other countries has shown that such materials benefit from the inputs of more than one individual. These pilot materials were then to be used by a small number of teachers in a sample of schools, so that they could be evaluated (and improved as necessary) during the second visit of the specialist whose main task was to develop the materials. A pilot project was then to be initiated so that the materials could be introduced into a sizeable number of schools in both urban and rural areas.

This report deals mainly with the development and evaluation of the road safety educational materials and the pilot project designed to introduce them into schools. The materials were designed for use by teachers of Primary School children in Class 1 (entered when aged 6); although they were evaluated using children in Classes 1 and 2. Often it is this age group of

children that are particularly vulnerable because it is normally when children start becoming more independent and trusted by their parents; and are therefore more at risk. The early years of formal education provide the ideal opportunity to start the road safety element of their social education. However, it is important to acknowledge that children of this age do not think (or behave) like adults, or have their vocabulary, and therefore need special materials tailored to their particular stage of their development.

A separate report deals with the 'Advisory' input. 'Children's Traffic Education in Bangladesh' contains: a review of the education system, considers current road accident statistics, the provision of road safety education, as well as providing some general principles for road safety education and making detailed proposals about how children's traffic education in Bangladesh could be improved in the future. The contents page of this report is included as Annex B of this report.

A list of the people, and their organisations, who were consulted by the specialists during this input are provided in Annex C.

The IDC project (sometimes referred to as IDC2, as it followed on from an initial review phase), is to continue as IDC3, which will start in January 1999. A 'transitional' phase (T-IDC) will operate until IDC3 starts. The National Road Safety Council (NRSC), by means of its Secretariat will play a key role in bringing about the proposals currently being considered for T-IDC and IDC3.

1.2 Road safety in Bangladesh

Compared to other countries Bangladesh has a serious road safety problem and all indications suggest that it is rapidly worsening.

Although, the accident database system being introduced as part of the IDC project does not yet cover the whole of the country (and there are still concerns about how complete the 'capture' of accidents is in those areas where it is being collected) there is now a sizable body of accident data available; especially within Dhaka.

An analysis of the available accident statistics suggests that pedestrians appear to be particularly vulnerable; and that very often these pedestrians are school-aged children. This situation is typical of many other comparable countries. While there are a number of ways that the numbers of such accidents can be reduced (for example by measures involving engineering and enforcement) road user education has a critical role to play. This appears to be particularly true in Bangladesh where there is a general belief that road users lack the knowledge (and understanding) required to behave safely and responsibly on the roads.

This education process should start in school and be part of the formal education process. Eventually this will mean all road users (children and adults alike) will have the necessary knowledge, in addition to having appropriate attitudes, to make their contribution to road safety.

1.3 Safety education in Bangladesh

This section contains a very brief overview of the current education situation in Bangladesh that is relevant to the provision of road safety. A more detailed picture is provided in the companion 'education' report - see Section 1.1.

The existing Road Safety Education (RSE) in primary schools is extremely poor; there is only one lesson devoted to road safety in the primary years (in Class 3) and this is of limited quality; and may not actively 'persuade' children to change already established behaviours.

In general, primary education is teacher-centered ('chalk-and-talk') although the new education policy (which is currently in draft form) encourages a move towards child-centered learning. However, it is likely to be a number of years before road safety education becomes a high priority element within the national curriculum. One of IDC3's many tasks is to speed up this process.

2 EDUCATIONAL MATERIALS

2.1 General guidelines

All educational materials need to take account of both the age groups for which they are intended as well as the environment in which they are to be used. This means that safety materials developed for use in schools in the UK, for example, are generally unsuitable for use in schools in developing countries. In addition to the children, the teachers and the classrooms all being different, what actually needs to be taught can also be very different. For example, not all countries have the numbers of zebra or panda crossings that there are in the UK.

This means that materials have to be developed separately for each country. This development process should involve an evaluation phase (or phases) where pilot materials are tested, and possible improvements identified, before the materials are introduced on a wider scale. Materials also need to be re-evaluated, and updated, on a regular basis.

Ideally road safety should be part of the national curriculum. This is in the process of being updated in Bangladesh and the IDC education input started too late to influence this process. As a result there is likely to be limited road safety education provided at an early stage of the formal education process; although this is likely to be remedied the next time the curriculum is updated.

In any case, materials need to be based on sound educational principles. They should be graduated, child-centered and, whenever possible, involve practical demonstrations. There has been considerable effort put into the development and evaluation of materials in other countries and this experience should be used to speed up and improve the provision of safety education in Bangladesh.

2.2 Development of pilot materials

The UK's Transport Research Laboratory (TRL), which has provided the specialist input for the safety element of the IDC project, has considerable experience of developing education materials for use in schools (and elsewhere) in a number of countries. They have now published guidelines on how this can most easily be achieved (TRL Overseas Road Note 17).

In recent years TRL have developed educational materials in countries such as Uganda, Ghana, India and Nepal. The experience and materials developed in these other countries were used to help develop the initial materials for trialing in Bangladesh.

The accident data available at the time of the first input did not suggest that one particular age group of child was particularly at risk and so the decision was made to target the materials at lower primary children, that is those starting school (Class 1), who would normally be aged six.

The expectation at the time was that additional materials would be provided for older children during later stages of the IDC project.

The pilot materials produced consisted of 3 activity sheets; each one containing three or four activities. The sheets were designed as teaching resources - that is they contain information, guidance and ideas for the teacher, and were not 'text books' for the children. The aim of the sheets was to make children safer pedestrians.

However, it was felt that knowledge levels were so low that the teachers themselves were likely to benefit; and that the children, once taught, could be encouraged to pass on what they had learned to their parents and their older brothers and sisters.

The sheets were designed to:

- provide children with a road safety vocabulary (a pre-requisite for further RSE)
- introduce the concept of danger on the road and identify its source
- inform children about safe behaviour near roads.

Additional materials will be required for older children. Many adults in Bangladesh also need to be involved in RSE, and this will also involve developing suitable materials.

These sheets (then in English, see Annex C) were presented at a workshop for teachers at a Primary Training Institute (PTI) in Gazipur, about 15 km north of Dhaka. The objectives of this workshop were:

- to explain the need for and the principles of RSE to a group of local teachers
- to train the teachers in the use of the materials
- to obtain feedback from the teachers about the quality of the materials.

This workshop revealed that very few of the teachers had considered RSE before, at least not beyond the teaching of a few road signs. The teachers appeared very enthusiastic about the materials and in addition to making a number of suggestions about how they could be improved, said that they would use the sheets with their children as a way of evaluating their suitability.

Provision was then made to translate the materials into Bangla (see Annex D) and to circulate these to the teachers via the Gazipur PTI. This resulted in the materials being trialed in 5 schools. All of these schools were 'on or near' large roads. While this meant that they had a real need for the materials (a child had recently been killed in a road accident at one of the schools), it also meant that the schools were not representative of the many 'rural' schools in Bangladesh.

2.3 Evaluation of materials

A workshop to evaluate the materials was held, again at Gazipur PTI. All the teachers that had used the materials were requested to attend in order to obtain feedback from them about how they felt that the materials had 'worked' with the children. The evaluation found that the teachers, although they were extremely supportive of the initiative, felt that a number of improvements could be made to the materials; the reason for conducting the evaluation.

Summary notes taken at this evaluation workshop are contained in Annex F. Two letters provided by individual teachers of their experience and thoughts on the materials (translated from Bangla) are included as Annexes G and H.

The new materials produced as a result of this evaluation are produced in Annex I (English) and Annex J (Bangla).

3 PILOT PROJECT

3.1 Background

The ToR for the second input of the education component (see Annex A) called for the 'development of a pilot project in urban and rural areas'. The objective of this was to disseminate the materials more widely than the small number of schools used for the evaluation and therefore increase the types of school (and children) using the materials. This would provide better opportunities in the future to:

evaluate, and improve, the materials, especially with regard to rural areas

examine whether the materials, if provided for schools along with appropriate teacher training, were actually being used; and used in the correct way, and

conduct additional evaluations of the materials based on either a larger sample of teachers, or by examining children's knowledge and behaviour.

The earlier stages of this programme had been conducted within the Gazipur District. This had involved the support and participation of their District Primary Education Officer (DPEO, Mrs Meherunnesa) and the Superintendent of their Primary Training Institute (PTI, Mrs K Sabina). Also, one of the PT I teaching staff (Md. H Ferdous) had provided invaluable assistance when any translating was required, for example at the initial training seminar and also at the evaluation workshop.

Following the evaluation workshop a separate meeting was held to discuss what would happen with respect to RSE in Gazipur in the future and the possibility of them being involved in a pilot project supported by the NRSC (see Annex F). This meeting confirmed their recognition of the need for such activity and their commitment and motivation to continue to provide training in road safety education for the teacher they were training and also, if possible, for the children within their region under their 'care'.

The extent of this commitment was clear when it emerged that road safety education was to be introduced (almost immediately) into their teacher training curriculum. This was normally determined nationally by the Ministry of Education (MOE). They also indicated that they would be happy to provide any help that might be required to 'deliver' materials that could be produced to either schools or teachers.

These discussions included the 'news' that Mr Ferdous would be given the task and responsibility for introducing the road safety education into the PTI's curriculum based on the 'new' materials.

Further discussions revealed that the Gazipur Region consisted of 6 separate Thanas, some of which could be described as 'rural'. The region had a total of 29 Assistant Thana Education Officers (ATEOs), who were responsible for monitoring the quality of the teaching in their areas. In addition these ATEOs conducted regular ('cluster') training for the teachers under their supervision. This training took place approximately every 2 months.

As a result of these discussions it was concluded that the 'pilot' project should take place in the Gazipur Region.

This activity was to be supported by the NRSC Secretariat (rather than IDC2 or the T-IDC), although IDC3 would be involved in reviewing the pilot scheme, producing additional materials and disseminating them more widely.

A lack of accident data in the Gazipur District meant that no longer term evaluation based on accident data could be planned.

3.2 Phases of pilot scheme

3.2.1 Final agreement on materials

Although both specialists (KS and CP) had originally been involved in developing the pilot materials, only one specialist was involved in the evaluation process reported here and in making changes to the original materials. It was therefore considered necessary to provide the other specialist (KS) the opportunity to have an input into the new materials following the evaluation. This would need to be done from her base in the UK.

3.2.2 Training of trainers (ToT)

Following the end of IDC2 (in July 1998) there is no provision for visiting specialist input into the pilot project until the start of IDC3. While the NRSC Secretariat will be able to provide some assistance they will not yet be able to provide appropriate technical support for the pilot project. This meant that the pilot scheme would be dependent on 'local' (Bangladeshi) support.

In order to provide this support it was necessary to get the agreement of Gazipur PTI to provide a suitable trainer to be involved in the project. An agreement was reached that a suitable Experimental Training Officer (stationed at Gazipur PTI) could be involved.

The individual (Mr Ferdous) was chosen because he:

- had attended (and translated for) the original teacher training workshop (conducted by KS and CP,
- had attended (and again translated at) the evaluation workshop (conducted by AQ)
- had discussed the new materials in depth with the specialist after the evaluation workshop
- had been given overall responsibility for road safety training within Gazipur PTI
- was fully conversant with, and in support of, 'new' teaching practices (such as 'child-centered learning')
- was highly motivated by and committed to the programme.

He was given additional detailed one-to-one training by the visiting specialist during the evaluation phase of the input. In order to provide additional support the proposal was that additional trainers would be taught during the early training workshops, to be conducted at Gazipur.

3.2.3 Training of new teachers

The pilot scheme proposed to provide training in the use of the road safety materials, and the materials themselves, for all current trainee teachers attending Gazipur PTI. As a result when they qualified and joined the schools where they were to work, they would already be equipped to use the materials. There are currently approximately 70 trainee teachers at Gazipur PTI.

3.2.4 Re-training existing teachers

The District Primary Education Officer in Gazipur is responsible for nearly 700 Primary schools. The pilot project planned to provide both training and materials for existing teachers in these schools by 'cascading' training down through the ATEOs. It was decided that the most effective way of achieving this would be to initially conduct two, or possibly three, workshops at Gazipur PTI to which the 29 ATEO serving in Gazipur would attend. These would then be able to provide materials and training in each of their areas during their normal training programme. The ATEOs would also be responsible, as part of their normal role, in evaluating the teaching being provided for children in each of the schools in their areas.

3.3 Proposed time-table

The time-table for the pilot project given below is only 'proposed'. This is because the NRSC Secretariat, which will support the project, is still being staffed. The level of support provided and the speed at which the project operates is likely to be dependent on the number (and interests) of the staff working within the Secretariat and when they start these jobs.

The pilot project could be administered with relatively little support. The minimum level of support required will simply involve providing materials (this will mainly involve photocopying and possibly delivering materials to Gazipur) and providing some small level of financial assistance for travel and attending workshops.

It should be noted that Gazipur PTI has no photocopying facilities. Nor does it have an overhead projector, or screen, that would make the training workshops more effective. The Secretariat should consider whether any assistance may be possible with regard to the overhead projector.

Task	Aug	Sep	Oct	Nov	Dec
Finalise materials(KS)	■	■			
Finalise materials (NRSC)		■			
Train trainee teachers		■			
Train additional Trainer		■			
Train ATEO			■	■	
Train existing teachers			■	■	■
Initiate evaluation					■

The 'evaluation' included above will largely consist of providing information that will be of value to the education specialist involved in IDC3. This person will need to know details of the scheme being operated, such as how many teachers and schools, and which ones, had been involved.

It is expected that the specialist will 're-evaluate' the materials used in the pilot scheme - with special reference possibly being given to children and schools in rural areas.

3.4 NRSC Secretariat assistance

For the pilot project to succeed (during the T-IDC phase) it will be necessary for the NRSC Secretariat to confirm (to Gazipur PTT) that the assistance discussed (and 'promised') by the visiting specialist at the conclusion of IDC2 will be available. This support would involve:

a) providing photocopies of the material for trainers to give out to those attending the workshops, or (in the case of ATEOs) planning to hold their own workshops.

The materials currently consist of 12 sides of A4 (in the English version). This might change if the Secretariat were to employ an 'artist' to improve the pictures contained in the materials. The proposed pilot scheme might require providing between 300 to 800 sets of materials.

b) providing financial help with the workshops. In Bangladesh, government workers (such as teachers) if required to attend a seminar or workshop for training normally expect to receive both the travel costs plus a small attendance allowances - to recompense them for the additional 'duty'. Both of these costs are more or less fixed according to existing agreements, but in any case they are not large.

It was agreed that all ATEOs in Gazipur could attend a days workshop in Gazipur without having to be paid overnight accommodation costs. Individual travel costs would differ but on average would be (of the order) 20-25 thakas. Each person attending would need to receive an attendance allowance of 125 thakas - this means that no lunch would need to be provided (unless the Secretariat were feeling generous!).

The two workshops proposed to train all the AETOs in Gazipur would therefore cost 4-5 thousand thakas.

These estimates do not provide money to pay for the time needed by the trainer to conduct the seminars. While this would be provided for nothing it may be acceptable for the Secretariat to support the time he spends - especially if this turns out to be more than originally proposed (see Section 3.5 below)

c) additionally, it is strongly recommended that the Secretariat undertake to employ a graphic artist to improve the quality of the 'pictures' that are included in the materials. Education materials work better if they are professionally produced - and even more so in the case of children. None of the educational specialists involved in this project had the professional skills required to perform this function. It is suggested that Mr Ferdous be involved in this activity.

The MOE have experience of producing such materials.

It is estimated that this work might cost between 1,000 and 1,500 thakas.

3.5 Extending pilot scheme

While no provision was made for extending the pilot scheme outside Gazipur, it may be worth placing on record that during discussions with ADC Jallil (Dhaka Traffic Police) on the proposed scheme in Gazipur, he expressed the strong desire for a similar exercise to take

place in Dhaka itself. He suggested that this might be accomplished by 'simply' getting the Dhaka DPEO to contact the DPEO in Gazipur.

If this were to happen and the Secretariat were to support the extension of the scheme, it would require additional funding. This might also involve paying for Mr Ferdous (or other trainers) time to work in Dhaka and not Gazipur.

The visiting specialist has taken no action with regard to this possible extension.

3.6 Pilot scheme and IDC3

The pilot scheme is expected to continue (managed and coordinated by the NRSC Secretariat) until IDC3 starts. The education specialist should then review the scheme and decide on whether it should continue to be supported and what particular form it should take. In any case it is likely that Gazipur District (and probably their PTT) will continue to be involved as any new materials, developed for older children, will need to be trialed in schools during the evaluation phase.

4 FUTURE REQUIREMENTS FOR ADDITIONAL MATERIALS

This input into the IDC programme has only produced materials suitable for children starting primary school (Class 1). There will therefore be a need in the future to develop additional materials for older children. These will be need to teach more complicated skills - such as how to cross the road safely.

It would be sensible for this process to follow the incremental policy adopted for this input, so that gradually materials become available for older and older children.

It is also important that road safety is not just treated as a 'one lesson a year' subject, but that teachers continually remind children of the need for care near traffic and regularly reinforce what they have been taught in formal lessons in the classroom. Teachers will need to have this pointed out to them both during their initial training and subsequent re-training.

5 RECOMMENDATIONS

5.1 Short-term

The pilot scheme in Gazipur District should be actively supported by the NRSC Secretariat. This is especially important during T-IDC in the absence of visiting education specialists. It is likely that the contacts made with Gazipur will be continued into IDC3.

A graphic artist should be given the task of improving the 'pictures' in the materials.

The pilot scheme should be reviewed at the start of IDC3. It can then either be extended or reduced in size. However, it is recommended that any future materials be made available to Gazipur District so that they can continue with their plans to provide safety education for the children in their care.

5.2 Long-term

Longer term proposals for the provision of road safety education in schools in Bangladesh, covering the years 1999 to 2004 (the duration of IDC3), are provided in the 'Children's Traffic Education in Bangladesh' Report.

ANNEXES

- Annex A: Terms of Reference for Children's Traffic Education Input
- Annex B: Contents page of 'Children's Traffic Education in Bangladesh' report
- Annex C: Organisations and Individuals Consulted
- Annex D: Pilot Materials (English)
- Annex E: Pilot Materials (Bangla)
- Annex F: Notes on 'Evaluation Workshop' and 'Pilot scheme' discussions
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ANNEX A

Terms of Reference for Children's Traffic Education Input

Road Safety Education Advisors

- Location: Ministry of Education
- Counterpart: Md. Tabarak Ali
Senior Specialist, National Curriculum and Textbook Board
- Reporting to: IDC Team Leader
- Objective: To increase the effectiveness of road safety education in schools and to assist NGOs to promote road safety education awareness in the community

Description of Role and Tasks

1 Introduction

- 1.1 It is proposed to use two specialists to undertake the tasks identified below. This approach has the benefit of combining the skills and expertise of two specialists, thereby enhancing the value of their inputs. This makes the best use of limited resources, enables more tasks to be undertaken in the short timescale and increases cost effectiveness. The approach of using more than one specialist to address a sector of activity has been used with success in several other countries. Experience shows, especially where teaching materials are to be developed, that the end product is better if input from more than one person is utilized. It should be stressed that, due to prior commitments and individual areas of expertise, it would not be possible for this work to be carried out by one person before the end of the project.
- 1.1 The Terms of Reference should be considered as two separate, but related, areas of work:
advisory services I road safety education (RSE)
materials development

There is a great deal of inter-dependence between the two areas of work and, therefore, the project would benefit from having a degree of overlap in the visits of the two consultants. Experience shows that such short term consultancy inputs are usually more effective if they consist of two visits by each specialist. This allows for ongoing activity by local counterparts during the period that the specialists are away from the country.

2 Advisory Services - Kim Smith, (Senior Consultant, Ross Silcock)

- 2.1 Phase 1 would review road safety provision in the national curriculum and activities undertaken via school based teaching and through NGOs. This phase would involve consultants with relevant professionals in the field, including the ministry of education, teacher training colleges, schools and NGOs. The national curriculum would be reviewed to determine existing road safety content and to provide advice on ways in which road safety could be integrated within the existing curriculum.
- 2.2 Teacher training would also be reviewed and recommendations for inclusion of road safety in the syllabus made in consultation with teacher training colleges and the Ministry. Other professionals, for example, police officers with a role in RSE, would also be consulted. It is

important for effective road safety education for children that visiting speakers to schools are not relied upon but supplement an overall curriculum based approach.

- 2.3 Phase 2 would develop a structured program for improving road safety y education. Recommendations for further resource/teaching materials would be made based on available accident data and gaps identified in teaching materials available.
- 2.4 Kim Smith (KS) would primarily be responsible for undertaking the Advisory services and would also produce a final report and recommendations which would be presented at a final seminar.
- 2.5 Teachers, head teachers and Ministry of Education officials would be invited to participate in a final seminar on 'The Teaching of Road Safety Education to Children.

3 Development of Materials

- 3.1 In Phase 1 of this part of the project, pilot education materials would be developed based on accident analysis and teaching resource requirements. From previous experience, it is expected that a pedestrian teaching resource incorporating classroom based and practical roadside activities will be required. An integrated part of introducing a new resource is to train teaches in its use. The schools selected for piloting the materials will be invited to participate in a teacher training workshop for this purpose.
- 3.2 A pilot teaching program, using the draft materials, will be developed allowing participating schools to trial the materials during the 3 month period when the specialist is not in the country. On the second visit (Phase 2), the results of the trials would be evaluated and the materials reviewed and finalized.
- 3.3 During Phase 2 a road safety pilot project would be developed to ensure training of teachers in the use of the materials and allow for incremental use of the resource in schools in urban and rural areas. This would involve training trainers who could then continue training existing teachers, both in the use of the resource and the need for road safety education in general.
- 3.4 Christian Palmer (CP) would be primarily responsible for the development and piloting of teaching materials and would contribute to the final report and seminar.

Summary of Road Safety Education Input

- 1 Road Safety Advisory Service Tasks (KS)
 - 1.1 Phase 1 Review of RSE provision and teacher training
Review of curriculum
Liaison with MOE, teachers, NGOs
Review of existing resources
Review of accident data
 - 1.2 Phase 2 Development of star structured RSE program
Recommendations for further teaching/resource materials
Preparation of final report
- 2 Development of Materials Task (CP)
 - 2.1 Phase 1 Review of existing resources
Review of accident data
Preparation of pilot materials
Pilot teacher training workshop
 - 2.2 Phase 2 Evaluation of pilot materials
Development of pilot project in urban and rural areas
Preparation of final report
Input to final report
Input to final seminar

Timing of Inputs:

Seven weeks for each specialist. The first visit for each would occur simultaneously in February 1998 with the second visits being staggered over the period mid may to end of June 1998.

Changes to ToR/staff:

The specialist responsible for the 'development of materials' aspect of this work (CP) was did not undertake his second input. Instead this was done by Allan Quimby (AQ), (like CP a TRL psychologist with overseas experience of road safety education).

This change of personnel resulted in:

- the second input being delayed
- the duration of the second input being reduced.

The required delay of the second input was fortunate because the Bangla version of the pilot was not provided to Gazipur PTI until the end of KS's second visit; and thus allowed them sufficient time to trial them before their evaluation undertaken by AQ.

However, the shortened input meant that proposals to extend the provision of materials into more 'rural' areas would need to take place after the second input had taken place.

ANNEX B

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Annex F: Information on Training in the UK

Annex G: Draft Terms of Reference for Further Immediate Technical Assistance

Annex H: Draft Programme of Work

ANNEX C

Organisations and Individuals Consulted

Prof Muhhamed Ali (Member of National Curriculum and Text Book Board, NCTB)
Mr Kuddus (Curriculum Specialist, NCTB)
Mr Tobarek Ali (Curriculum Specialist, NCTB)
Mr Shafiu Alam (Curriculum Advisor, NCTB)

Mrs Kawsar Sabina (Superintendent of Primary Training Institute, Gazipur)
Mr Hasanrul Ferdous (Experimental Instructor at PTI, Gazipur)

Mrs Meherunnesa (District Primary Education Officer, Gazipur)

Dr Terri Kelly (Education division, DFID, Dhaka)
Mr Mike McCarthy (DFID, Dhaka)

Md Iqbal Karim (World Bank)
Mr Stein Lundebye (World Bank)

Prof Md Mazurul Hoque
Prof Amalgir Mujibul Hoque
Prof Md Zakaria
(all Bangladesh University of Engineering and Technology, Dept of Civil Engineering)

Mrs Mashuda Khatun Shefali (Executive Director of NUK - a NGO)

Mrs Chritine Bardsley (British Council)
Eric Thriphrope (British Council)

Mrs Birgiter Lund-Henriksen (UNICEF)

Md Shamsul Haque (Director of Training at the Directorate of Primary Education)
Dr A K M Alam (Deputy Director of Training at DPE)

Mrs Neena Afreen (Senior Materials Development Specialist at BRAC - an NGO)
Mrs Cerena Samad (ditto)

ANNEX D

Pilot Materials (English)

Sheet 1: Road Safety Vocabulary

Introduction

One of the first steps in road safety education is to develop a vocabulary which can later be used to discuss more complicated concepts.

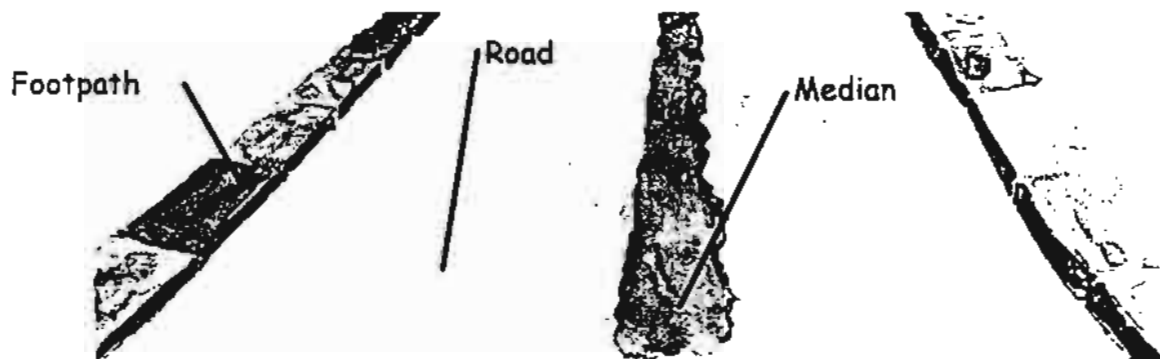
Objectives

- to develop a vocabulary of the road environment
- particularly to understand the distinction between pedestrians and traffic
- to understand the properties of various road users
- to understand where various road users should be

Activity one: Naming the parts of the road

It is important that children are able to recognise and describe the various parts of the road. Unfortunately all roads look different, but they still retain some of the same properties.

Draw this simple diagram on the board. Point to the various items and ask the children to name them.



On some roads the footpath is made of stone and is higher than the road. On most roads the footpath is less obvious.

N.B. Do not rub the diagram off the board - you will use it again later.

Activity two: Naming vehicles

Ask the children to list as many vehicles as they can. As the children mention vehicles, write them up on the blackboard.

The list should contain at least the following words:

Truck	Bus
Car	Jeep
Bicycle	Rickshaw
Baby Taxi	Tempo
Cart	Van
Pick-up	

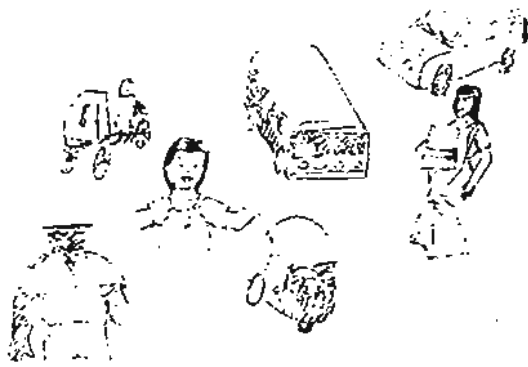
One word that children may not have heard is 'traffic'. You should explain that traffic is a general word that describes all these vehicles.

Now ask the children to describe each of these vehicles. They should be encouraged to use as many descriptors as possible, but examples are size, how fast they travel, whether they have an engine, and so on.

Activity three: The difference between traffic and pedestrians

Another word that children may not have heard is 'pedestrian'. It is very important that they learn this word because it helps them to make the distinction between vehicles (traffic) and people (pedestrians). Ask the children to describe people in relation to traffic - for example ask the children if pedestrians are fast or slow, hard or soft, and so on.

Ask the children to look at the pictures below. For each picture the children should say whether the picture is of something which is 'traffic' or something which is a 'pedestrian'.



Activity four: Where do pedestrians and traffic move?

The distinction between traffic and pedestrians is important, because they are supposed to use different parts of the road.

Draw the children's attention back to the diagram of the road. Name various vehicles and people. For each one ask the children if it should move on the road or on the footpath.

Sheet 2: Dangers On The Road

Introduction

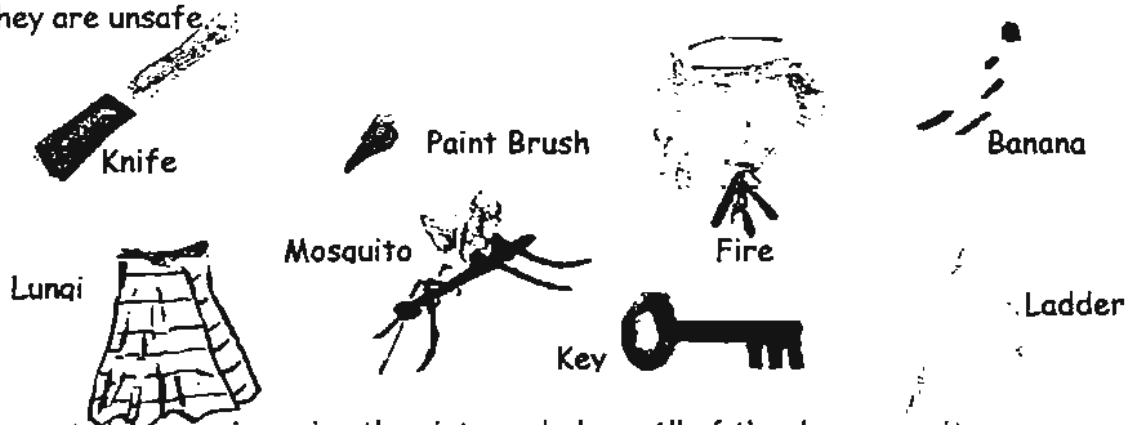
The road is an extremely dangerous place. Although children may claim that they realise this, they probably have not actually thought about the dangers. The idea is not to scare children so that they are afraid to leave the house. It is to give children a respect for the dangers of traffic so that they make safe behaviour a priority when they are near roads.

Objectives

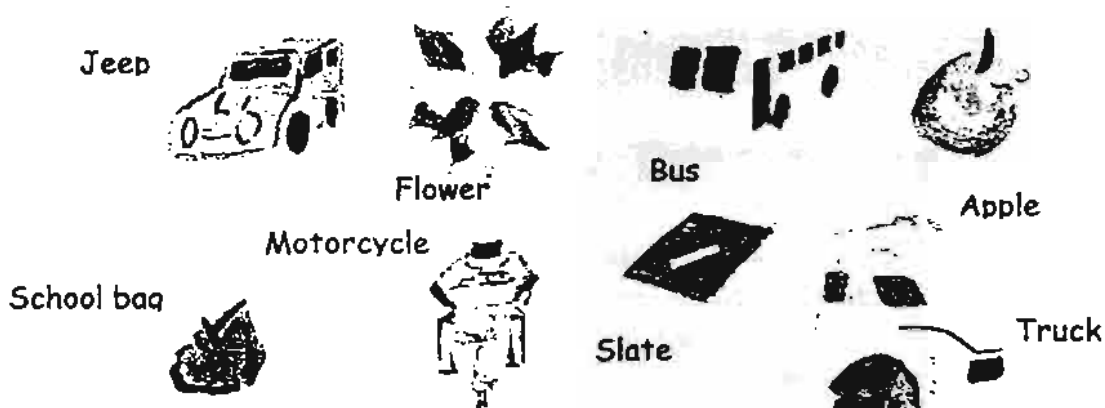
- to understand that many things are dangerous
- to understand that traffic and roads are dangerous
- to realise why traffic is dangerous
- to think and talk about road mishaps/accidents
- to realise that mishaps are avoidable
- to practice using the words learnt in Sheet 1

Activity one: Dangerous things

Children are probably well aware that certain things are dangerous (for example fire), however they may not be so aware of other dangers. Ask children to look at the pictures below. When they have all been named, write the words on the blackboard (alternatively you could draw the pictures on the board before the lesson starts). Ask the children whether each item is safe or unsafe - for the 'unsafe' items ask the children to explain why they are unsafe.



Now repeat the exercise using the pictures below. All of the dangerous items are vehicles. When asking the children why the vehicles are dangerous make sure they remember their descriptions of vehicles used in Sheet 1 - vehicles are fast, hard and so on, and make sure they mention road accidents.



Activity three: Why are accidents dangerous?

The previous activity should have brought out the fact that traffic is dangerous because it can cause mishaps/accidents. If a vehicle collides with a pedestrian the result is often terrible, because vehicles are heavy and travel very fast - road mishaps hurt people more than they hurt vehicles!

This activity illustrates this point. It is very simple but also very effective. The exercise should be done outside the classroom, perhaps on the verandah.

Take an egg and draw on a face. Explain to the children that children's heads are very brittle, just like the egg. Then explain that vehicles are very hard, just like the ground. Ask the children what they think will happen when the egg and the ground meet. Now drop the egg from head height and observe the results. Explain to the children that this is what happens in road accidents - the children get hurt and the vehicles are undamaged. You could also explain that the egg was only traveling at about 20 km per hour when it hit the ground - vehicles are often traveling four or five times as fast!

Activity four: Describing road mishaps

Write on the blackboard "Anyone can have a road accident." Ask the class if anyone has had, or nearly had, a road accident (or if they know of anyone who has). Ask them how it felt (e.g. frightening, painful) and write the key words up on the board. Ask the children if they think that the mishap could have been avoided if the children had behaved differently.

Split the class into small groups (e.g. five or six children) and get them to discuss amongst themselves the circumstances of the accidents they have had or nearly had. Give them a few minutes to talk, and then select a few children to tell the class about their experiences. If there is time you could ask your class to write a brief account of one of their experiences.

Try to bring out the following points: traffic is dangerous and can hurt you, roads are for traffic, the footpath is for pedestrians, you should behave safely near the road and that accidents are avoidable.

Sheet 3: Safety By The Road

Introduction

It is not enough to tell children that the road environment is dangerous and that they should behave safely - children need to be told what safe behaviour really is. Many of the activities described below are carried out in the school compound.

Objectives

- to understand that it is not safe to run on or near the road
- to know that children should be accompanied - and should hold hands with an adult that they know - when walking near roads
- to know that they should walk facing the oncoming traffic

Activity one: Holding hands

As the children in your class are very young and their perceptual abilities have not developed sufficiently to be totally safe near roads, they should be accompanied by an adult. Whether children are being accompanied, or whether they themselves are accompanying other, younger children, they should hold hands.

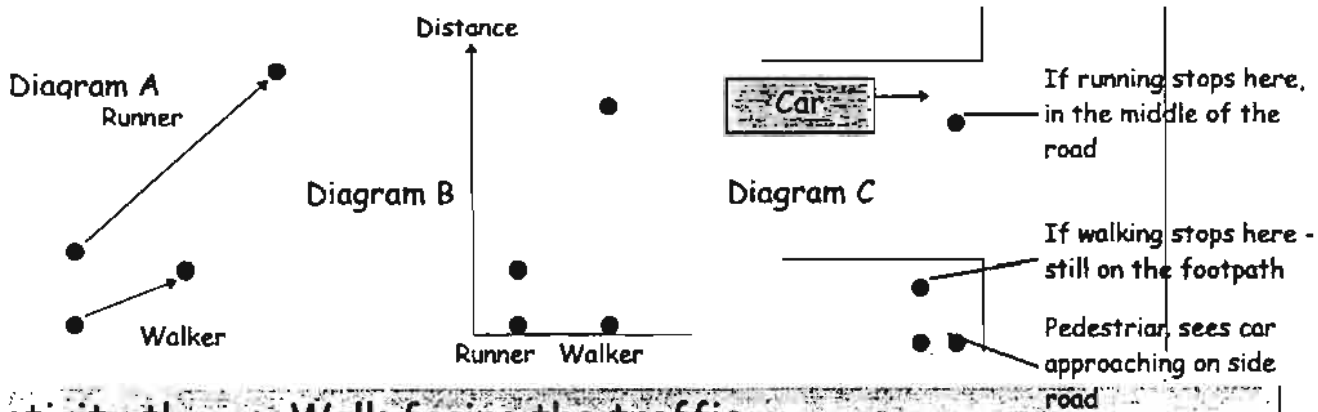
In the compound draw two lines on the ground with a stick - tell the children that this is the road. Ask pairs of children to demonstrate how they should walk along together. Tell one child he/she is the adult and the other is the child. The pair should walk together holding hands on the right hand side of the road (this is important and is explained later in the sheet), with the older child nearest the road.

Activity two: Walk - don't run - near roads

Still in the compound, ask the children to run, skip, walk backwards and walk forwards. Ask the children which they think is the safest way to move near roads. Walking is the safest way to move because it minimises the chances of tripping and allows you to stop easily in the case of an emergency.

For the next demonstration you will need two children to be pedestrians and four children as helpers. Ask one pedestrian to walk and the other to run, and tell them that when you say 'stop!' they should try to stop as quickly as possible. Ask the helpers to mark where each of the children was when you said stop, and where they were when they finally managed to stop - each helper should mark one of these places (see Diagram A).

Ask the children to measure the difference in stopping distance. Back in the classroom you can demonstrate the importance of this. Draw diagram B on the board - this shows the stopping distances. Now add lines representing roads as in diagram C. In the event of an emergency the walker would have been able to stop on the footpath, but the runner would have ended up in the road and would have been exposed to danger.



Activity three: Walk facing the traffic

It is very important that children walk facing the traffic - that is they should walk on the right side of the road wherever possible. The only exceptions are if there is no footpath on the right but there is on the left, and in situations where crossing the road to get to the right exposes the children to unacceptable levels of danger.

Vehicles make noise - either an engine noise, or a horn or a bell. When walking with our backs to the traffic we have to guess the position of the vehicles by their noise. This is much less accurate than by using our sight. The importance of facing the traffic can be demonstrated in the compound by simulating the road environment.

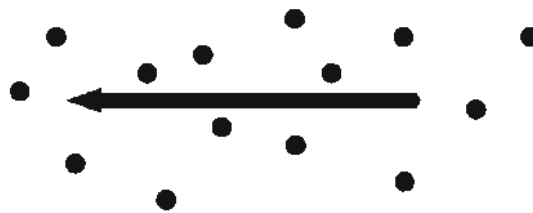
Arrange around 20 children randomly in a 2m by 5m area. Ask them to walk forwards slowly and ask them to hum (to simulate the noise of the traffic). Ask another child to walk slowly backwards through the other children with his/her eyes shut. This child should try to avoid bumping into any other children, just using the sound as a guide.

Now ask him/her to walk through the other children forwards with their eyes open but with their hands over their ears.

Ask the children which they think was easiest. Ask the children which is best - eyes or ears - for avoiding vehicles.



- Child tries to avoid other children
- walking backwards with eyes closed
 - Walking forwards with ears covered



Children walk forward slowly, humming

ANNEX E

Pilot Materials (Bangla)

সিটি-১ : সড়ক নিরাপত্তার ব্যবহৃত শব্দের তালিকা

সূচনা

সড়ক নিরাপত্তা শিক্ষার প্রথম পদক্ষেপ হিসাবে প্রথমে নিরাপত্তা সংক্রান্ত শব্দগুলি জানা দরকার। জটিল ধারণা আলোচনা করার সময় শব্দগুলি ব্যবহার হবে।

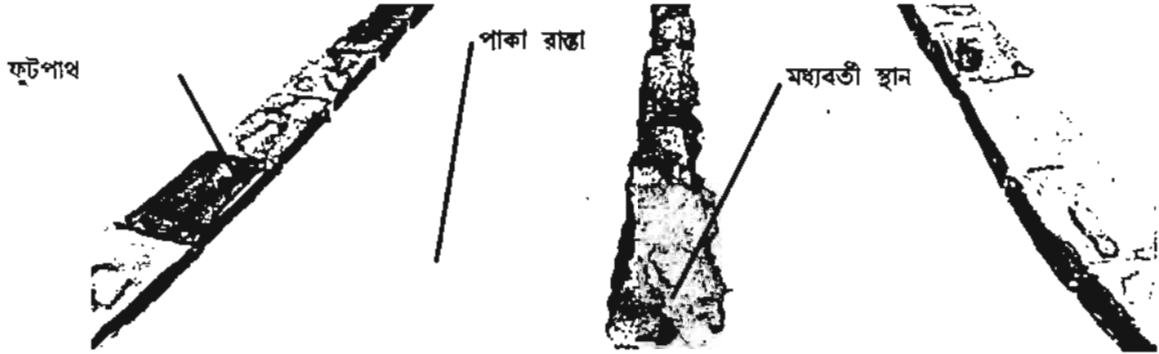
উদ্দেশ্য

- সড়কের পারিপার্শ্বিক অবস্থা বর্ণনা করার সময় যে সমস্ত শব্দাবলী প্রয়োগ করা হবে তার বিকাশ লাভ করা।
- বিশেষতঃ পথচারী ও ট্রাফিকের মধ্যে কি পার্থক্য তা বুঝতে পারা।
- নানা ধরনের সড়ক ব্যবহারকারীর গুণাগুণ বুঝা।
- সড়ক ব্যবহারকারীগনকে কোথায় থাকা উচিত বুঝতে পারা।

কর্মতৎপরতা-১: সড়কের বিভিন্ন অংশের নাম

ইহা খুবই জরুরী যে ছেলেমেয়েরা সড়কের বিভিন্ন অংশ চিনতে পারে এবং বর্ণনা করতে পারে। দুর্ভাগ্যে যে, সব রাস্তাই দেখতে ভিন্ন মনে হলেও তাদের কিছু অংশের একই গুণাগুণ রয়েছে।

নীচের এই সাধারণ নকশা বোর্ডে অঙ্কন করুন বিভিন্ন অংশ উল্লেখ করুন এবং ছেলেমেয়েদের নাম বলতে দিন।



কোন কোন রাস্তার ফুটপাথ তৈরী হয় ইটের টুকরা দ্বারা বা বিটুমিনে সহ ইটের টুকরা বা শুধু ইট দ্বারা। কোন কোন সময় মধ্যবর্তী স্থান নানা ভাবে নির্মান করা হয়। কোন কোন সময় শুধু লাইন টেনে দেখান হয়।

কর্মতৎপরতা-২: গাড়ীর নাম

শিশুদের যত প্রকারের গাড়ীর নাম জানে সেগুলো লিখতে বলুন। শিশুরা যখন গাড়ীগুলো নাম উল্লেখ করবে তখন তা ব্ল্যাক বোর্ডে লিখুন।

লিটে অন্ততঃ নিম্নলিখিত শব্দ গুলো যেন থাকেঃ

ট্রাক	বাস
কার	জিপ
বাই-সাইকেল	রিক্সা
বেবি টেক্সি	টেম্পো
ঠেলাগাড়ী	ভ্যান
পিকআপ	

ট্রাফিক শব্দটা শিশুরা শুনে নাও পারে। ব্যাখ্যা করে বুঝিয়ে দিতে হবে যে ট্রাফিক একটা সাধারণ শব্দ যা দ্বারা সব জাতের গাড়িকে বুঝায়।

এখন শিশুদের প্রত্যেক জাতের গাড়ীর বর্ণনা করতে বলুন। বেশী বর্ণনা দিতে উৎসাহিত করুন যেমন কত দ্রুত চলতে পারে, ইঞ্জিন আছে কিনা ইত্যাদি।

কর্মতৎপরতা তিনঃ ট্রাফিক ও পথচারীর মধ্যে পার্থক্য

পথচারী শব্দটা শিশুরা নাও শুনে পারে। এই শব্দটা জানা তাদের খুবই জরুরী কারণ গাড়ী (ট্রাফিক) ও মানুষ (পথচারী) দুই এর মধ্যে পার্থক্য বুঝতে সাহায্য করে। ট্রাফিকের সহিত মানুষের সম্পর্ক বিষয়ে শিশুদের বর্ণনা করতে বলুন যেমন পথচারী দ্রুত চলে না আস্তে চলে। কোনটা শক্ত কোনটা নরম ইত্যাদি।

নীচের ছবিগুলো শিশুদের দেখিয়ে বলতে বলুন কোন ছবি ট্রাফিকের ও কোন ছবি পথচারীর।



কর্মতৎপরতা চারঃ পথচারী ও ট্রাফিক কোথায় চলাফেরা করবে

পথচারী ও ট্রাফিকের মধ্যে পার্থক্য জানা খুবই জরুরী কারণ তারা রাস্তার নির্দিষ্ট অংশ ব্যবহার করে।

পূর্বের চিত্রের দিকে শিশুদের দৃষ্টি আকর্ষণ করুন। নানান জাতের গাড়ী ও পথচারীর নাম বলুন। শিশুদের প্রশ্ন করুন তারা রাস্তা দিয়ে না ফুটপাথ দিয়ে হাটবে।

ভূমিকাঃ

রাস্তা খুবই বিপজ্জনক জায়গা। যদিও শিশুরা দাবী করবে যে তারা তা বুঝে। সম্ভবতঃ তারা বিপদ সম্পর্কে চিন্তাভাবনা করে নাই। রাস্তা কেন বিপদজনক শিশুদের বুঝিয়ে দিন তবে শিশুদের ভীতপ্রদ করা ঠিক হবে না যে তারা ঘর থেকে বাইরে যেতে ভয় পায়।

ট্রাফিক জনিত বিপদ সম্পর্কে শিশুদের জ্ঞান থাকা উচিত যাতে তারা যখন রাস্তায় যাবে তখন যেন নিরাপদ আচরণের প্রতি বিশেষ যত্নবান হয়।

উদ্দেশ্য

- অনেক জিনিষই বিপজ্জনক বুঝতে হবে।
- রাস্তা ও ট্রাফিক বিপজ্জনক বুঝতে হবে।
- ট্রাফিক কেন বিপজ্জনক অনুধাবন করা।
- রাস্তার দুর্ঘটনা সম্পর্কে কথাবার্তা বলা ও সেই সম্বন্ধে আলোচনা করা।
- বুঝতে হবে যে দুর্ঘটনা কোন কোন সময়ে এড়ানো যায় না।
- এক নম্বর সিটে যে সমস্ত শব্দ আছে সেগুলো ব্যবহার করা শিখা।

কর্মতৎপরতাঃ একঃ বিপজ্জনক জিনিসঃ

সম্ভবত শিশুরা জানে যে কিছু জিনিস বিপজ্জনক (যেমন আগুন) তবে হয়ত অন্যান্য জিনিস সম্বন্ধে তারা তত ওয়াকিবহাল নয়। নীচে ছবির প্রতি শিশুদের দৃষ্টি আকর্ষণ করুন। যখন সবগুলোর নাম বলা হইবে তখন ব্লেক বোর্ডে নাম গুলো লিখুন। অথবা শিক্ষা প্রদান করার অ্যাঙ্গে ওগুলোর ছবি আকুন। শিশুদের জিজ্ঞাসা করুন প্রত্যেক জিনিস কি নিরাপদ না বিপজ্জনক - বিপজ্জনক জিনিস সম্বন্ধে জিজ্ঞাসা করুন কেন সেগুলো বিপজ্জনক।



এখন নীচের ছবিগুলি দিয়ে উপরের অনুশীলন আবার করান। সবগুলো গাড়ীই বিপজ্জনক। গাড়ীগুলো কেন বিপজ্জনক শিশুদের এই প্রশ্ন করা হলে তা যেন এক নম্বর সীটে গাড়ীর বিবরণ মনে করতে পারে যথা- গাড়ী, দ্রুত, শক্ত ইত্যাদি। রাস্তায় দুর্ঘটনার কথা যেন তারা নিশ্চই বলে।



কর্মতৎপরতা তিন : দুর্ঘটনা কেন বিপজ্জনক :

পূর্বের কার্যক্রমে এই সত্য বের হবে যে ট্রাফিক বিপজ্জনক কারণ এটা দুর্ঘটনা ঘটায়। একটা গাড়ী যদি একজন পদচােরী কে আঘাত করে তবে ফলাফল খুবই দুঃখজনক হবে কারণ গাড়ী গুলো ভারী ও দ্রুত চলে। একটা গাড়ী অন্য গাড়ীকে আঘাত করার চেয়ে একজন যাত্রীকে আঘাত করা বেশী বিপজ্জনক।

নীচের পরীক্ষা উপরের বিষয়কে বিশদভাবে বুঝাতে সাহায্য করতে পারে। পরীক্ষাটি খুবই সরল কিন্তু কার্যকরী। এই কার্যক্রম ক্লাসরুমে না করে বারান্দায় করা যায়।

একটা ডিমের উপর মুখ আক। শিশুদের বলেন যে তাদের মাথা ডিমের মত ভঙ্গুর। পরে বলেন যে গাড়ীগুলো খুবই শক্ত জমির মত। শিশুদের বলেন যে, যদি ডিম জমিকে মুখামুখি আঘাত করে তবে কি হবে? এখন উপর হতে একটা ডিম ছেড়ে দিন এবং ফলাফল দেখেন। শিশুদের বলুন যখন রাস্তায় দুর্ঘটনা ঘটে তখন এরূপ হয়। শিশুরা আঘাত পাবে কিন্তু মাটির কিছুই হবে না। আরও বলবেন যে ডিমটা তখন ঘটায় মাত্র ২০ কিঃ মিঃ বেগে চলছিল। গাড়ীগুলো এর চেয়ে ৪/৫ গুন বেগে চলে।

কর্মতৎপরতা চারঃ রাস্তার দুর্ঘটনার বিবরণ:

ব্লেক বোর্ডে লিখুন "কারো সড়ক দুর্ঘটনা ঘটেছে কি?" জিজ্ঞাসা করুন কেউ কোন দুর্ঘটনায় পড়েছে বা পড়ার উপক্রম হয়েছিল কি? অথবা কোন দুর্ঘটনার খবর শুনার পর কি অনুভূত হয়েছিল (যেমন ভীতি, যন্ত্রণা দায়ক) এবং বোর্ডে মূল শব্দগুলো লিখুন। শিশুদের জিজ্ঞেস করুন যদি হট্টার সময় দুর্ঘটনা ঘটে থাকে তবে অন্যভাবে হাটলে দুর্ঘটনা এড়ানো যেত কি?

পাঁচ ছয়জন শিশুদের নিয়ে এক একটা দল করুন। কি অবস্থায় দুর্ঘটনা ঘটেছে বা ঘটার উপক্রম হয়েছিল সে সম্বন্ধে আলোচনা করতে বলুন। কয়েক মিনিট সময় দেন। কয়েকজন শিশুকে সে সম্বন্ধে বলার জন্য ডাকুন যদি সময় থাকে তবে তাদের অভিজ্ঞতা সম্বন্ধে লিখতে বলুন।

নিম্নলিখিত বিষয়গুলি স্পষ্ট করে তুলুন যে গাড়ী গুলি ভয়ংকর। এটা আঘাত করতে পারে। রাস্তা গাড়ীর জন্য এবং ফুটপাথ পদ যাত্রীদের জন্য। তুমি রাস্তা এমন ভাবে ব্যবহার কর যাতে দুর্ঘটনা না ঘটে।

ভূমিকা

এটাই যথেষ্ট নয় যে শিশুদের বলা যে সড়কের পারিপার্শ্বিকতা বিপজ্জনক এবং তারা যেন নিরাপদ আচরণ করে। নিরাপদ আচরণ কি বিন্দু ভাবে বলা দরকার। নিম্নের কার্যক্রমগুলি স্থূল মাঠে করা যাবে।

উদ্দেশ্য

- রাস্তায় বা রাস্তার পাশে দৌড়ানো নিরাপদ নয় বুঝতে হবে।
- শিশুদের সাথে বয়স্ক একজনের হাত ধরে রাস্তায় চলাচল করা জানতে হবে।
- বুঝতে হবে যে তারা যখন রাস্তায় হটিছে তখন সামনের দিক থেকে গাড়ী আসছে।

কমতৎপরতা: এক হাত ধরা

আপনার ক্লাসে শিশুরা অল্প বয়স্ক। রাস্তায় নিরাপত্তা বোধ এখনও তাদের সেরূপ উপলব্ধিতে আসে নাই। তাদের সাথে বয়স্ক একজন থাকা দরকার। শিশুদের সাথে একজন হাত ধরে থাকবেন বা শিশুরা চলাফেরা করার সময় হাত ধরে থাকবে।

মেঝেতে দুটো লাইন টেনে বলুন যে: ওটা রাস্তা। দুজন শিশুকে বলেন যে তারা নিম্নরূপভাবে রাস্তা দিয়ে হটিবে। একজন শিশুকে বলেন যে সে যেন নিজেকে বয়স্ক মনে করে অন্যজন শিশু। দুজন হাত ধরে রাস্তায় ডান পাশ দিয়ে হটিবে। বয়স্ক জন পাকা রাস্তার ধারে থাকবে।

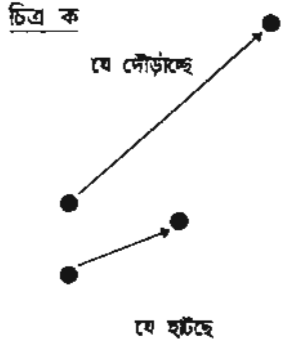
কমতৎপরতা: দুই হাত ধরে শিশু দৌড়াবেনা

মাঠে শিশুদের দৌড়াতে, লাফ দিতে পিছন দিকে হটিতে ও সামনের দিকে হটিতে বলুন। শিশুদের জিজ্ঞাসা করুন রাস্তার পাশ দিয়ে কেন ধরনের চলাফেরা বিপদমুক্ত। হটি হচ্ছে সবচেয়ে বিপদমুক্ত কারণ হুট খাওয়ার সম্ভাবনা কম থাকে এবং যে কোন জরুরী অবস্থায় সহজে থামা যায়।

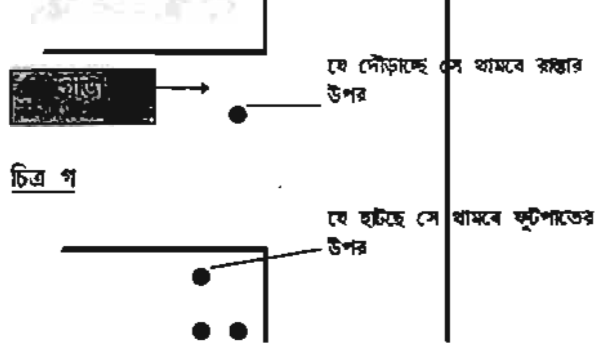
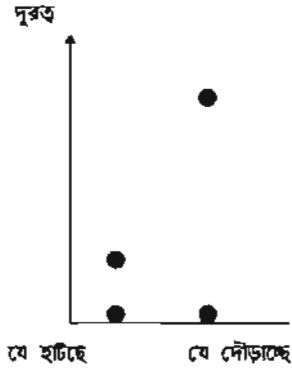
এই প্রদর্শনের কাজে দুই শিশুকে পর্যায়ক্রমে জন্ম ও চার জনকে সাহায্যের জন্য দরকার হবে। এক পদচারীকে হটিতে এবং অন্যজনকে দৌড়াতে বলুন এবং তাদেরকে বলুন যখনই আপনি 'থাম' বলবেন তারা যেন সঙ্গে সঙ্গে থামে। সাহায্যকারীদের বলুন; যে যখন আপনি 'থাম' বলছিলেন তখন তারা কোন স্থানে ছিল চিহ্ন দিয়ে রাখবে এবং শেষে যেখানে থামে তথায় আবার চিহ্ন দিবে। দুই স্থানের দূরত্ব শিশুদের মাপতে বলুন। ক্লাস রুমে ফিরে এসে এটার প্রয়োজনীয়তা ব্যাখ্যা করুন। নীচের চিত্র 'ক', 'খ' এবং 'গ' ব্লক বোর্ডে আকুন। চিত্র ক তে একজন হটিছে অন্যজন দৌড়াচ্ছে। একই সময়ের মধ্যে যে দৌড়াচ্ছে সে বেশী দূরে চল যাবে এবং যে হটিছে সে কম দূরত্বে যাবে।

চিত্র খ তে মনে করুন ফুটপাথ দিয়ে একজন হটিছে এবং অন্যজন দৌড়াচ্ছে।

চিত্র গ তে দুটো রাস্তার সংযোগ দেখানো হয়েছে। এবং ফুটপাথ দিয়ে একজন হটিছে এবং অন্যজন দৌড়াচ্ছে। হঠাৎ একটা গাড়ী নজরে পড়ল। যে হটিছে সে ফুটপাথেই থামতে পারবে। কিন্তু যে দৌড়াচ্ছে সে রাস্তার উপরে চলে যাবে এবং বিপদের সম্মুখীন হবে।



চিত্র খ

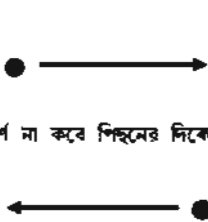


কমিউনিটি সার্ভিস: স্কুলে পরিষ্কার হাট

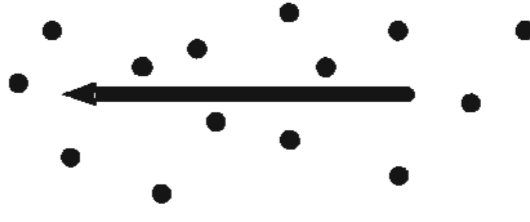
ইহা খুবই দরকারী যে শিশুরা ট্রাফিক সামনে রেখে হাটবে অর্থাৎ যেখানে সম্ভব রাস্তার ডান পাশ দিয়ে হাটবে। ব্যতিক্রম হবে সেখানে, ডানে ফুটপাথ নাই অর্থাৎ বায়ে আছে এবং ডানে যাবার জন্য রাস্তা অতিক্রম করার সময় যদিও বিপদের আশঙ্কা থাকতে পারে।

গাড়ী চলার সময় শব্দ করে তা ইঞ্জিনের হতে পারে আবার হর্ন বা বেল বাজানোর জন্য হতে পারে। যে সমস্ত গাড়ী পিছনে থাকে তাদের শব্দ হতে তাদের অবস্থানের অনুমান করা যায়। এটা চোখে দেখার চেয়ে কম নির্ভুল। মাঠে রাস্তার পারিপাশ্বিকতা সৃষ্টি করে সামনের ট্রাফিকের গুরুত্ব শিশুদের বুঝানো যেতে পারে। যেমন :

২ মিঃ X ৫ মিঃ জায়গায় ২০ জন শিশুকে নিয়ে আসুন। তাদেরকে সামনে দিকে আস্তে আস্তে হাটতে বলুন ও হাটার সময় যেন এমন গুঞ্জন করে মনে হবে গাড়ীর শব্দ। একজন শিশুকে চোখে বন্দ করে আস্তে আস্তে পিছন দিকে হাটতে বলুন শুধুমাত্র তাদের শব্দের উপর অনুমান করে। এই শিশুটি যেন অন্য শিশুকে ধাক্কা না দেয়। এখন অন্য শিশুকে সামনের দিকে হাত দিয়ে কান বন্ধ করে হাটতে বলুন। শিশুদের বলুন কোনটা সহজ? জিজ্ঞাসা করুন চোখ না কান কানটা সবার চেয়ে ভাল।



ক) অন্যকে স্পর্শ না করে পিছনের দিকে চোখবন্ধ করে হাটছে



খ) সামনের দিকে কানবন্ধ করে হাটছে

শিশুরা শব্দ করে আস্তে আস্তে সামনের দিকে হাটছে।

ANNEX F

Notes on 'Evaluation Workshop' and 'Pilot scheme' discussions

Date: Wednesday 22 July

Location: Gazipur Primary Training Institute (11 am - 2 pm)

Present for evaluation meeting:

6 Primary teachers (names and schools held on NRSC Secretariat file)

Mr Ferdous

Kawser Sabina

Mrs Meherunneas

Allan Quimby

Objectives:

- for teachers to report back on their experience of using training materials and make recommendations as to how they could be improved

Notes: Mr Ferdous was 'borrowed' for the occasion from his current literacy assignment in Kantipur. He had often acted as the interpreter for KS and CP, including at their teacher training workshop.

5 of the teachers involved were male, only one was female

1. IN GENERAL

1. The teachers were very enthusiastic about the materials, and reported that their students were as well. They had planned to try the materials out on Classes 1 and 2 only (they had 5 classes of each) but the general interest generated in Classes 3, 4 and 5 meant that they had been included as well!

2. The teachers felt that for Class 1 children :

- the pictures were too small (?)
- the picture of the road needed to be 'extended (to look more like a road)' and include vehicles etc
- colour pictures were needed
- more pictures would be better

3. They said (typically):

- children do not know regulations (nor do parents!)
- did not 'know' or 'think' about road safety
- had become very interested after the being taught
- before being taught children had believed that it was always the fault of the driver; but not now - pedestrians were also at fault
- children had equated 'traffic' with the 'traffic police'

4. They thought more such materials were required

5. They had tended to use the sheets separately (and thought more sheets would be a good idea), they wanted to know when (in the term, and during the school day) they should be used, agreed (with me) that they should be in the school curriculum.

6. They gave me the impression that they did not appreciate that the materials were supposed to encourage child-centered learning; they wanted lots of pictures to 'show' the children what would happen - not let them work it out for themselves

2. IN PARTICULAR

SHEET 1 - ACTIVITY 1

The picture should show more road, be more realistic, show vehicles etc, and not 'focus' on the footpath; also, there were many types of median (including nothing) and these should be shown

SHEET 1 - ACTIVITY 2

There was some confusion here. The Bangla version (apparently) says that the children (not the teachers) should write the names of the vehicles in their work books - it was pointed out that this would be beyond them in Class 1 and 2!

They thought that pictures would be required to distinguish things like 'pick-up' and 'jeep' (and some of the other things eg truck, van); someone thought they could probably distinguish simple things like rickshaws from cars, another felt that children think 'everything is just a 'car'. [I know we are providing a vocabulary]

SHEET 1 - ACTIVITY 3

One teacher said he was 'in the dark' about the difference between traffic and pedestrians. [Brian Hills, Overseas Center at TRL, has always argued that pedestrian counts should be included in traffic counts!!]

The pictures were not very good/big, there was no road in the background (they were seen, by the teachers (all?) as a crowded scene rather than separate items), the items were not separated (?) and shown either on the road or pavement (?) – they didn't get the idea here

SHEET 1 - ACTIVITY 4

They seemed content with this - although I 'm not convinced they had all/always drawn a picture of a road on the board in the first place [It is, after all, not the easiest thing to draw!!- see earlier comments on picture] and let the children do the work - big pictures and/or a flipchart would help!

SHEET 2 - ACTIVITY 1

The Bangla version had very poor reproduction of the pictures and the labels had been left off!! They were very enthusiastic about recommending (pictures) of other dangerous things they would like included (eg matches/fire/burn), falling from a tree, falling off the roof, drowning in a sinking boat, fingers down electricity sockets) - I began to think they could go on forever.

At least one of them failed to see the connection between the two sets of pictures (ie 'non-road safe and dangerous' and 'road safe and dangerous')

SHEET 2 - ACTIVITY 3 (ACTIVITY 2 IS INCLUDED IN 1(?))

'The falling egg' - they had all (I think) tried this and it worked well - especially with the children [It does reinforce an important point]

SHEET 2 - ACTIVITY 4

This appeared to work (one school had recently had a fatal (truck!) near the entrance. Again they said it would be good to have pictures of road accidents, children walking on wrong side of road being injured, running in road causing an accident ("for this age pictures are good" -

but they may also make it easier for the teacher... and (I think... but I may be wrong) reduce child-centered learning

SHEET 3 - ACTIVITY 1

This (someone mentioned 'role playing') worked well. It was done in playground

SHEET 3 - ACTIVITY 2

The children enjoyed this ('don't run it takes longer to stop' was fine) but someone had used different walking speeds. None of them had used the diagrams (a, b and c) they were "too complicated". I'm pretty sure some of the teachers themselves didn't understand them.

SHEET 3 - ACTIVITY 3

I had been 'worried 'about this (eyes not ears) but they were all content with it.

Additional comments:

a) No materials were included about how to cross the road (stop, look, listen, etc). This was because the children at this age area still a bit young to be 'encouraged' to do this unsupervised - it WILL be included in materials for older children.

b) We could get the children to tell their parents, brother, sisters etc what they had learned - they could also tell untrained teachers!!

c) The teachers were happy to take part, thought it valuable and thanked the project for their important work ("Why hadn't we been doing this all along?").

Meeting to discuss 'Pilot project'

Present: Mrs Meherunneas
Kawser Sabina
Mr Ferdous
Allan Quimby

Objective:

To discuss the 'pilot project'.

Note: The ToR talk about 'training of trainers' and introducing program into 'urban and rural areas'

1. The materials had been trialed in only 5 schools - probably more urban than rural.
2. Because changes would be required after the 'evaluation' it was thought to be too late to organise further teacher seminars by the visiting specialist in urban and rural areas.
3. However, Mrs Meherunneas said she would be happy to circulate any new materials within her region (she was responsible for 543 Government Primary Schools, 136 Registered Primary Schools and 18 Satellite Schools) which would cover both urban and rural areas; she had received only 17 copies of the 'test' materials and said if she was given any more materials (whether it was 100 or 700 copies) she would make use of them
4. The possibility of NRSC support was discussed to disseminate the materials into more schools, AQ reported they could provide materials and help with the cost of training workshops.
5. Mrs Sabina said that Mr Ferdous would be given the task of training the current batch of trainee teachers.
6. He could also undertake to run two (or three) workshops for ATEO (in a room supplied by PTI) but, if these were to take place, help would be required for providing materials, day allowances and travel costs.
7. AQ reported that this would come within support role of NRSC Secretariat; and that he would discuss and organise this from his end before he left Bangladesh.

Some thoughts:

If some detailed 'Teacher's notes' were produced (and there was no time for conducting seminars (eg two seminars attended by 25 -30 ATEOs) the widest circulation would be achieved by involving PTI - the most effective way of starting the programme - even if in only one Thana.

If 150 -200 copies were supplied by IDC and circulated (noting those schools either provided or not provided) it would be possible to do a student/child 'knowledge survey' (schools with/without materials in rural/urban areas) as well as conducting a more extensive (new) materials evaluation.

ANNEX G

Report on evaluation from Sripur Primary School

Mawna J.M. Govt. Primary School
Sripur, Gazipur
21-7-98

"Report on road Safety Education"

Road accident is a every day matter in Bangladesh. Though there are many reasons for the accident but accidents of the pedestrian due to ignorance are not less and involvement of Children are more. As a result every day young lives are lost. To get rid of accidents due to ignorance of the pedestrian, it is necessary to introduce learning in the primary school. Aiming to this one workshop was held at Gazipur P.T.I. in 8/7/98 on "Road Safety Education". In this connection necessary papers were sent to the school on 1/7/98 for training of the Children. Basing on the papers training courses were held for the students from Class III to Class V. The program and results are given below :

Class	Training seat number	Date of training	Time	Remark
Class I	1	4-7-98	3:30-4:15	
"	2	5-7-98	"	
"	3	6-7-98	"	
Class II	1	8-7-98	"	
"	2 & 3	13-7-98	"	
Class III	1	14-7-98	"	
"	2 & 3	15-7-98	"	

As per above program practical training was given

Experience from the training

Many children of this school use road as pedestrian. It is pity that few children know about the rules of the road and conscious about it. Road is dangerous, they have no realisation. This has been proved from the descriptions given by the children which they saw. They have no clear idea that road pavement is for the traffic and footpath is for the pedestrian. The children only know that drivers are responsible for the accidents. They do not know that as a pedestrian they have no knowledge.

Result of the training

- 1) They are enthusiastic to learn the words used in road safety.
- 2) The children have acquired sufficient knowledge that the road is very dangerous
- 3) They have learnt the rules for the pedestrian
- 4) The children are now cautious to use the road

At the end it can be said that if the children are taught about road safety in the schools, accidents due to ignorance will be reduced in near future. This is a continuous process and every year progress to be maintained and the workshop is to be carried out. Along with this remedies are to be found not for other causes of accident.

Md. Fakrul Islam
Head Master
Mowland J. M. Govt. Primary School
Sripur, Gazipur.

ANNEX H

Report on evaluation from Nawgpoor Primary School

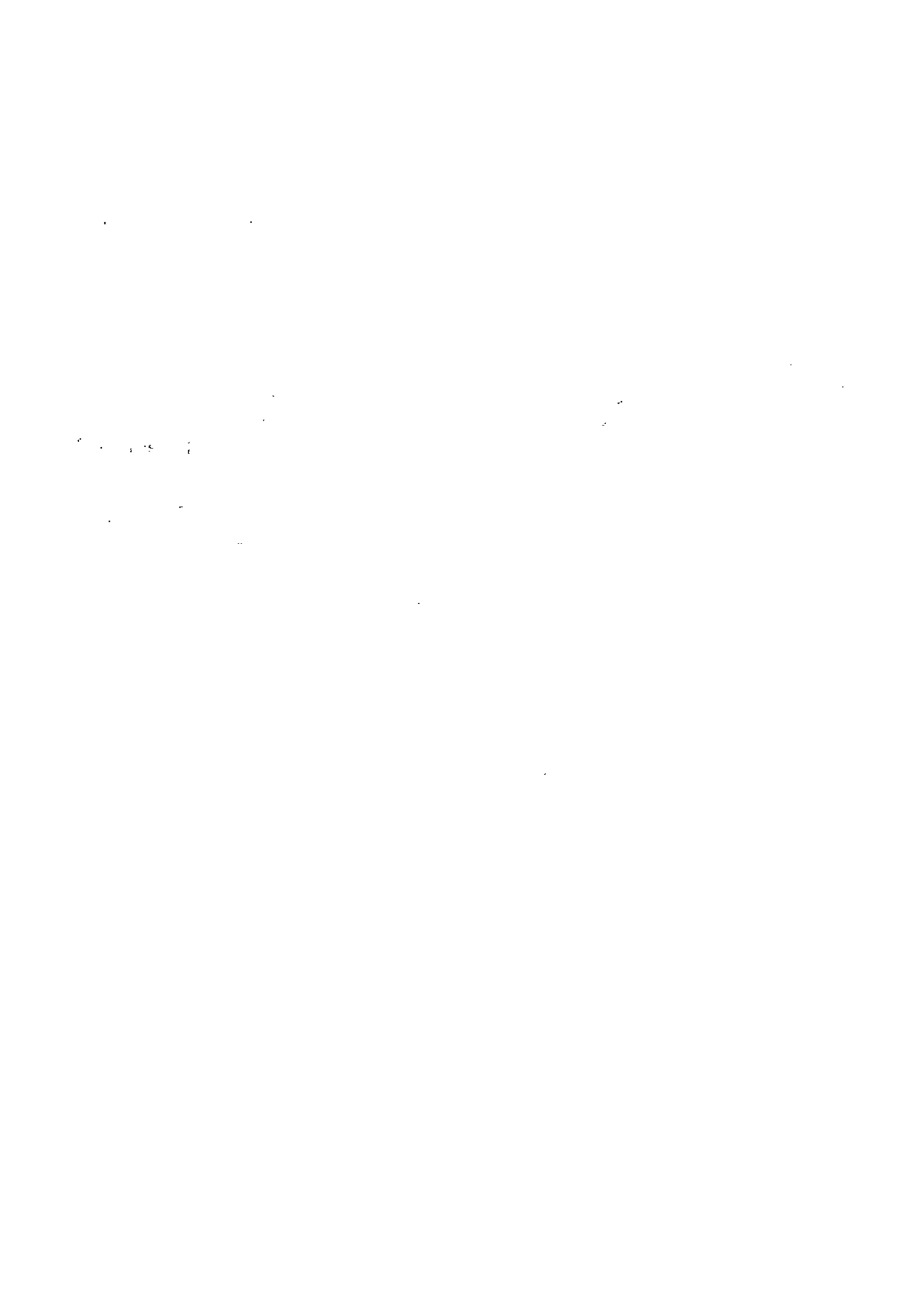
**37 No. Nawgoor Govt. Primary School
PO. Kodda Bazar, P.S. Gazipur, District, Gazipur.**

REPORT

Safe crossing of road

After getting training on safe road crossing, we arranged training class wise in our school. The children knew the names of different parts of roads, name of traffic, difference between traffic and pedestrian, which things are dangerous, how accident can be avoided, standing on road pavement side is risky, crossing the road through walking and rules to cross road safely. The good result due safe crossing of the road, and to understand them we used egg for effect of accident due to uncareful crossing. The school is near a road. We took the children on road and asked the children one by one to cross road safely. Every children enthusiastically crossed the road safely. The children clearly understood the other rules of the road from other paper. 'Safe road crossing' is really very useful and acceptable by the children. It will minimise the loss of life. We recommend to extend this program and keep it continuous.

Safiuddin Ahmed
Head Master



ANNEX I

Final materials (English) - without figures

NOTES FOR TEACHERS ABOUT ROAD SAFETY MATERIALS

1. Compared to other countries the road safety problem in Bangladesh is very bad.
2. Pedestrians appear to be particularly at risk.
3. Many pedestrian accidents involve children.
4. While parents have a responsibility to educate their children **so do teachers**
5. In any case, many parents do not know themselves how to behave safely themselves and often set a bad example.
6. These materials are designed to help you teach road safety to children. They are designed particularly for early Primary School children (Classes 1 and 2). Other materials are being developed for older children.
7. Using these materials may save the life of one of 'your' children.
8. You should also remind children regularly about being careful near traffic, set a good example yourself and tell any children you see behaving dangerously what they should be doing.

--ooOoo--

Sheet 1: Road Safety Vocabulary

Introduction

One of the first steps in road safety education is to develop a useful vocabulary that can later be used to discuss more complicated concepts.

Objectives

- to develop a vocabulary of the road environment
- particularly to understand the distinction between pedestrians and traffic
- to understand the properties of various road users
- to understand where different road users should be

Activity one: Naming the parts of the road

It is important that children are able to recognise and describe the various parts of the road. Unfortunately all roads look different, but they still retain some of the same properties.

Show Figure 1 (a country road) and then draw a simple diagram of a road on the board (something like Figure 2 - start without the '?' and 'arrows').

Point to the various items and ask the children to name them. It is particularly important that they identify the footpath, the road and the median. They should also appreciate that the road is 'two way' (things move in both directions) and that there is a right and wrong side for doing this.

Discuss the differences between roads in towns and in the countryside.

On some roads the footpath is made of stone and is higher than the road. On most roads the footpath is less obvious (it may simply be earth) and be lower than the road surface. The median (or centre of the road) can be a high concrete barrier, be planted with grass and trees, consist of lines painted on the road, or be unmarked.

N.B. Do not rub the diagram off the board - you will use it again later.

Activity two: Naming vehicles

Ask the children to think of as many types of vehicles as they can. As the children mention vehicles, you should write them up on the blackboard.

The list should contain at least the following words:

Car	Truck
Bus	Bicycle
Rickshaw	Handcart
Baby Taxi	Tempo

One word that children may not have heard is 'traffic'. You should explain that traffic is a general word that describes all these vehicles.

Now ask the children to describe each of these vehicles. They should be encouraged to use as many descriptors as possible, but examples are size, what they carry, how fast they travel, whether they have an engine, and so on.

Activity three: The difference between traffic and pedestrians

Another word that children may not have heard is 'pedestrian'. It is very important that they learn this word because it helps them to make the distinction between vehicles (traffic) and people (pedestrians). Ask the children to describe people in relation to traffic - for example ask the children if pedestrians are fast or slow, hard or soft, and so on.

Ask the children to look at the pictures in Figure 3 (you could provide your own examples if you preferred). For each picture the children should say whether the picture is of something which is 'traffic' or something which is a 'pedestrian'.

Activity four: Where do pedestrians and traffic move?

The distinction between traffic and pedestrians is important, because they are supposed to use different parts of the road.

Draw the children's attention back to the diagram of the road. Name various vehicles and people. For each one ask the children if it should move on the road or on the footpath.

Sheet 2: Dangers On The Road

Introduction

The road is an extremely dangerous place. Although children may claim that they realise this, they probably have not actually thought about the dangers. The idea is not to scare children so that they are afraid to leave the house. It is to give children a respect for the dangers of traffic so that they make safe behaviour a priority when they are near roads.

Objectives

- to understand that many things are dangerous
- to understand that traffic and roads are dangerous
- to realise why traffic is dangerous
- to think and talk about road mishaps/accidents
- to realise that mishaps are avoidable
- to practice using the words learnt in Sheet 1

Activity one: Dangerous things

Children are probably well aware that certain things are dangerous (for example fire), however they may not be so aware of other dangers. Ask children to look at the pictures in Figure 4 (again, you could supply your own examples and pictures if you wanted). When they have all been named, write the words on the blackboard (alternatively you could draw the pictures on the board before the lesson starts). Ask the children whether each item is safe or unsafe - for the 'unsafe' items ask the children to explain why they are unsafe.

Now repeat the exercise using the pictures in Figure 5. Here, all of the dangerous items are vehicles. When asking the children why the vehicles are dangerous make sure they remember their descriptions of vehicles used in Sheet 1 - vehicles are fast, hard and so on, and make sure they mention road accidents.

Activity two: Why are accidents dangerous?

The previous activity should have brought out the fact that traffic is dangerous because it can cause mishaps/accidents. If a vehicle collides with a pedestrian the result is often terrible, because vehicles are heavy and travel very fast - road mishaps hurt

people more than they hurt vehicles!

The following activity illustrates this point. It is very simple but also very effective. The exercise should be done outside the classroom, perhaps on the verandah.

Take an egg and draw on a face. Explain to the children that children's heads are very brittle, just like the egg. Then explain that vehicles are very hard, just like the ground. Ask the children what they think will happen when the egg and the ground meet. Now drop the egg from head height and observe the results. Explain to the children that this is what happens in road accidents - the children get hurt and the vehicles are undamaged. You could also explain that the egg was only traveling at about 20 km per hour when it hit the ground - vehicles are often traveling four or five times as fast!

Activity three: Describing road mishaps

Write on the blackboard "Anyone can have a road accident." Ask the class if anyone has had, or nearly had, a road accident (or if they know of anyone who has). Ask them how it felt (e.g. frightening, painful) and write the key words up on the board. Ask the children if they think that the mishap could have been avoided if the children had behaved differently.

Split the class into small groups (e.g. five or six children) and get them to discuss amongst themselves the circumstances of the accidents they have had or nearly had. Give them a few minutes to talk, and then select a few children to tell the class about their experiences. If there is time you could ask your class to write, or draw, an account of one of their experiences.

Try to bring out the following points:

- traffic is dangerous and can hurt you,
- roads are for traffic,
- the footpath is for pedestrians,
- you should behave safely near the road
- that accidents are avoidable.

Sheet 3: Safety By The Road

Introduction

It is not enough to tell children that the road environment is dangerous and that they should behave safely - children need to be told what safe behaviour really is. Many of the activities described below are carried out in the school compound.

Objectives

- to understand that it is not safe to run on or near the road
- to know that children should be accompanied - and should hold hands with an adult that they know - when walking near roads
- to know that they should walk facing the oncoming traffic

Activity one: Holding hands

As the children in your class are very young and their perceptual abilities have not developed sufficiently to be totally safe near roads, they should be accompanied by an adult. Whether children are being accompanied, or whether they themselves are accompanying other, younger children, they should hold hands.

In the compound draw two lines on the ground with a stick - tell the children that this is the road. Ask pairs of children to demonstrate how they should walk along together. Tell one child he/she is the adult and the other is the child. The pair should walk together holding hands on the right hand side of the road (this is important and is explained later in the sheet), with the older child nearest the road.

Activity two: Walk - don't run - near roads

Still in the compound, ask the children to run, skip, walk backwards and walk forwards. Ask the children which they think is the safest way to move near roads. Walking is the safest way to move because it allows you to stop quickly in an emergency and minimises the chances of tripping.

For the next demonstration you will need two children to be pedestrians and four children as helpers. Ask one pedestrian to walk and the other to run, and tell them that when you say 'stop!' they should try to stop as quickly as possible. Ask the helpers to mark where each of the children was when you said stop, and where they were when they finally managed to stop - each helper should mark one of these places.

Ask the children to measure the difference in stopping distance.

Explain this is why it is dangerous to run near roads. You can also emphasise that because some traffic is going very fast it takes a long time to stop.

Activity three: Walk facing the traffic

It is very important that children walk facing the traffic - that is they should walk on the right side of the road wherever possible. The only exceptions are if there is no footpath on the right but there is on the left, and in situations where crossing the road to get to the right exposes the children to unacceptable levels of danger.

Vehicles make noise - either an engine noise, or a horn or a bell. When walking with our backs to the traffic we have to guess the position of the vehicles by their noise. This is much less accurate than by using our sight. The importance of facing the traffic can be demonstrated in the compound by simulating the road environment.

Arrange around 20 children randomly in a 2m by 5m area. Ask them to walk forwards slowly and ask them to hum (to simulate the noise of the traffic). Ask another child to walk slowly backwards through the other children with his/her eyes shut. This child should try to avoid bumping into any other children, just using the sound as a guide.

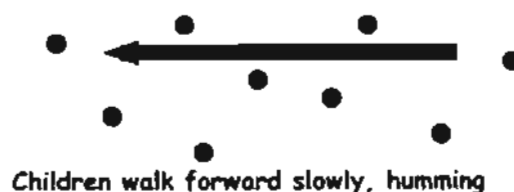
Now ask him/her to walk through the other children forwards with their eyes open but with their hands over their ears (see the diagram below).

Ask the children which they think was easiest. Ask the children which is best - eyes or ears - for avoiding vehicles. Emphasis the need to walk (on the footpath whenever possible) facing the oncoming traffic.

Tell the children to tell their parents and older brothers and sisters what they have been taught at school about safety by the road:

- children should hold hands
- to walk - not run - near roads
- to walk facing traffic.

- Child tries to avoid other children
- walking backwards with eyes closed
 - Walking forwards with ears covered



ANNEX J

Final material (Bangla)

ভূমিকা

রাস্তা খুবই বিপজ্জনক জায়গা। যদিও শিশুরা দাবী করবে যে তারা তা বুঝে। সম্ভবতঃ তারা বিপদ সম্পর্কে চিন্তাভাবনা করে নাই। রাস্তা কেন বিপদজনক শিশুদের বুঝিয়ে দিন তবে শিশুদের ভীতপ্রদ করা ঠিক হবে না যে তারা ঘর থেকে বাইরে যেতে ভয় পায়।

ট্রাফিক জনিত বিপদ সম্পর্কে শিশুদের জ্ঞান থাকা উচিত যাতে তারা যখন রাস্তায় যাবে তখন যেন নিরাপদ আচরণের প্রতি বিশেষ যত্নবান হয়।

উদ্দেশ্য

- অনেক জিনিষই বিপজ্জনক বুঝতে হবে।
- রাস্তা ও ট্রাফিক বিপজ্জনক বুঝতে হবে।
- ট্রাফিক কেন বিপজ্জনক অনুধাবন করা।
- রাস্তার দুর্ঘটনা সম্পর্কে কথাবার্তা কলা ও সেই সম্বন্ধে আলোচনা করা।
- বুঝতে হবে যে দুর্ঘটনা কোন কোন সময়ে এড়ানো যায় না।
- এক নম্বর সিটে যে সমস্ত শব্দ আছে সেগুলো ব্যবহার করা শিখা।

কর্মতৎপরতা এক: বিপজ্জনক জিনিস

সম্ভবত শিশুরা জানে যে কিছু জিনিস বিপজ্জনক (যেমন আগুন) তবে হয়ত অন্যান্য জিনিস সম্বন্ধে তারা তত ওয়াকিবহাল নয়। চিত্র নং ৪ এর দিকে ছাত্রদের দৃষ্টি আকর্ষণ করুন (আপনি নিজে ঐ রকম ছবি বা দৃষ্টান্ত দিতে পারেন)। যখন সবগুলোর নাম বলা হবে তখন ব্লেক বোর্ডে নাম গুলো লিখুন। অথবা শিক্ষা প্রদান করার আগে ওগুলোর ছবি আকুন। শিশুদের জিজ্ঞাসা করুন প্রত্যেক জিনিস কি নিরাপদ না বিপজ্জনক - বিপজ্জনক জিনিস সম্বন্ধে জিজ্ঞাসা করুন কেন সেগুলো বিপজ্জনক।

এই কার্যক্রম চিত্র নং ৫ দ্বারা আবার অনুশীলন করুন। এখানে সবগুলো গাড়ীই বিপজ্জনক। গাড়ীগুলো কেন বিপজ্জনক শিশুদের এই প্রশ্ন করা হলে তা যেন এক নম্বর সীটে গাড়ীর বিবরণ মনে করতে পারে যথা- গাড়ী দ্রুত, শক্ত ইত্যাদি। রাস্তায় দুর্ঘটনার কথা যেন তারা নিশ্চয়ই বলে।

কর্মতৎপরতা দুই: দুর্ঘটনা কেন বিপজ্জনক

পূর্বের কার্যক্রমে এই সত্য বের হবে যে ট্রাফিক বিপজ্জনক কারণ এটা দুর্ঘটনা ঘটায়। একটা গাড়ী যদি একজন পদচারী কে আঘাত করে তবে ফলাফল খুবই দুঃখজনক হবে কারণ গাড়ী গুলো ভারী ও দ্রুত চলে। একটা গাড়ী অন্য গাড়ীকে আঘাত করার চেয়ে একজন যাত্রীকে আঘাত করা বেশী বিপজ্জনক।

নীচের পরীক্ষা উপরের বিষয়কে বিশদভাবে বুঝাতে সাহায্য করতে পারে। পরীক্ষাটি খুবই সরল কিন্তু কার্যকরী। এই কার্যক্রম ক্লাসরুমে না করে বারান্দায় করা যায়।

একটা ডিমের উপর মুখ আক। শিশুদের বলেন যে তাদের মাথা ডিমের মত ভঙ্গুর। পরে বলেন যে গাড়ীগুলো খুবই শক্ত জমির মত। শিশুদের বলেন যে, যদি ডিম জমিকে মুখামুখি আঘাত করে তবে কি হবে? এখন উপর হতে একটা ডিম ছেড়ে দিন এবং ফলাফল দেখেন। শিশুদের বলুন যখন রাস্তায় দুর্ঘটনা ঘটে তখন এরূপ হয়। শিশুরা আঘাত পাবে কিন্তু মাটির কিছুই হবে না। আরও বলবেন যে ডিমটা তখন ঘন্টায় মাত্র ২০ কিঃ মিঃ বেগে চলছিল। গাড়ীগুলো এর চেয়ে ৪/৫ গুন বেগে চলে।

কমতঃপূর্বতঃ তঃসঃ রাস্তার দুর্ঘটনার বিবরণঃ

ব্রেক বোর্ডে লিখুন "কারো সড়ক দুর্ঘটনা ঘটেছে কি?" জিজ্ঞাসা করুন কেউ কোন দুর্ঘটনার পড়েছে বা পড়ার উপক্রম হয়েছিল কি? অথবা কোন দুর্ঘটনার খবর শুনার পর কি অনুভূত হয়েছিল (যেমন ভীতি, যন্ত্রণা দায়ক) এবং বোর্ডে মূল শব্দগুলো লিখুন। শিশুদের জিজ্ঞেস করুন যদি হাটার সময় দুর্ঘটনা ঘটে থাকে তবে অন্যভাবে হটলে দুর্ঘটনা এড়ানো যেত কি?

ক্রাসের ছাত্র-ছাত্রীদের কয়েকটা দলে ভাগ করুন। এক একটা দলে পাঁচ/ছয়জন ছাত্র-ছাত্রী যেন থাকে তাদের দেখা বা জানা দুর্ঘটনা কি অবস্থায় ঘটেছে বা ঘটার উপক্রম হয়েছিল সে সম্বন্ধে আলোচনা করতে বলুন। কয়েক মিনিট সময় দিন। কয়েকজন শিশুকে সে সম্বন্ধে বলার জন্য ডাকুন যদি সময় থাকে তবে তাদের অভিজ্ঞতা সম্বন্ধে লিখতে বলুন।

নিম্নলিখিত বিষয়গুলি স্পষ্ট করে তুলুন :

- গাড়ী গুলি ভয়ংকর ও আঘাত দিতে পারে
- রাস্তা গাড়ীর জন্য
- ফুটপাথ পথচারীর জন্য
- রাস্তায় ভূমি নিরাপদ আচরণ কর
- দুর্ঘটনা এড়ানো যায়

সড়ক নিরাপত্তা বিষয়ে শিক্ষকদের জ্ঞাতব্য

- ১। অন্যান্য দেশের তুলনায় বাংলাদেশে সড়ক নিরাপত্তা ব্যবস্থা খুবই খারাপ।
- ২। পথচারী হুমকির সম্মুখীন।
- ৩। পথচারী দুর্ঘটনায় শিশুরাও জড়িত
- ৪। পিতামাতা যেমন শিশুদের শিক্ষার জন্য দায়ী তেমনই শিক্ষকও দায়ী।
- ৫। যাই হউক, অনেক বাবা-মা নিরাপত্তা বিষয়ে খুবই কম জানেন এবং অনেক সময় খারাপ দৃষ্টান্ত দিয়ে থাকেন।
- ৬। সাথেই কাগজপত্রগুলি শিশুদের সড়ক নিরাপত্তা বিষয়ে সাহায্য করবে। এইগুলি প্রাইমারী স্কুলে ক্লাস-১ ও ক্লাস-২ শ্রেণীর শিশুদের জন্য তৈরী করা হয়েছে। বয়স্ক ছাত্র জন্য অন্য কাগজ-পত্র তৈরী করা হবে।
- ৭। এই শিক্ষা হয়ত একটি শিশুকে বাচাতে পারে।
- ৮। নিয়মিতভাবে শিশুদের স্মরণ করে দেওয়া দরকার যে রাস্তা ও ট্রাফিক সম্বন্ধে সতর্কতা অবলম্বন করবে, নিজে একজন ভাল নজীর হিসাবে দেখাবে এবং যে শিশু বিপজ্জনক ভাবে চলে তাকে বুঝিয়ে দিবে।

সূচনা

সড়ক নিরাপত্তা শিক্ষার প্রথম পদক্ষেপ হিসাবে প্রথমে নিরাপত্তা সংক্রান্ত শব্দগুলি জানা দরকার। জটিল ধারণা আলোচনা করার সময় শব্দগুলি ব্যবহার হবে।

উদ্দেশ্য

- সড়কের পারিপার্শ্বিক অবস্থা বর্ণনা করার সময় যে সমস্ত শব্দাবলী প্রয়োগ করা হবে তার বিকাশ লাভ করা।
- বিশেষতঃ পথচারী ও ট্রাফিকের মধ্যে কি পার্থক্য তা বুঝতে পারা।
- নানা ধরনের সড়ক ব্যবহারকারীর গুণাগুণ বুঝা।
- সড়ক ব্যবহারকারীগনকে কোথায় থাকা উচিত বুঝতে পারা।

কর্মরূপের তালিকা : সড়কের বিভিন্ন অংশের নাম

ইহা খুবই জরুরী যে ছেলে মেয়েরা সড়কের বিভিন্ন অংশ চিনতে পারে এবং বর্ণনা করতে পারে। দুর্ভাগ্য যে, সব সড়ক দেখতে ভিন্ন মনে হলেও তাদের কিছু কিছু অংশের একই গুণাগুণ রয়েছে।

চিত্র নং ১ এ গ্রামের একটা রাস্তা দেখানো হয়েছে। বোর্ডে চিত্রটি অঙ্কন করতে হবে। অসুবিধা হলে চিত্র নং ২ এর মত চিত্র অঙ্কন করা যাবে তবে প্রশ্নবোধক চিহ্ন এবং তীর চিহ্ন প্রথমে আকতে হবে না।

তারপরে এক একটা অংশে তীর চিহ্ন দিয়ে ছাত্রদের সেই অংশের নাম জিজ্ঞাসা করেন। ইহা খুবই দরকারী যে ছাত্ররা গাড়ী চলাচলের রাস্তা, পায়ে চলার রাস্তা এবং মধ্যবর্তী অংশ (মিডিয়ান) ভাল ভাবে জানতে পারে। তাদের আরও বুঝতে হবে যে একটি রাস্তায় দুদিক থেকেই গাড়ী চলাচল করে এবং প্রত্যেক দিকের গাড়ীর জন্য রাস্তার একটা পাশ নির্দিষ্ট থাকে। কোন পাশটা ঠিক ও কোন পাশটা ভুল তা যেন ছাত্ররা উপলব্ধি করতে পারে। গ্রামের রাস্তা ও শহরের রাস্তার মিল, পার্থক্য ইত্যাদি নিয়ে আলোচনা করুন।

কোন কোন রাস্তায় পায়ে চলার অংশ (ফুটপাথ) বাধানো এবং রাস্তা থেকে উচু থাকে। বেশীর ভাগ রাস্তায় ফুটপাথ ঐ রকম সুস্পষ্ট নয়। অনেকাংশে মাটির তৈরী এবং রাস্তা থেকে একটু নীচু হয়ে থাকে। মধ্যবর্তী অংশ পাকা ও উচু হতে পারে, চারদিক ঘিরে মধ্যে গাছ লাগানোও হতে পারে আবার রং দিয়ে টানা দুটো লাইন হতে পারে অথবা কোন কিছু নাও থাকতে পারে।

নেট : বোর্ডে যে ছবি একেছেন যা মুছবেন না। পরবর্তীতে কাজে লাগবে।

কর্মরূপের তালিকা : গাড়ীর নাম

শিশুরা যত প্রকারের গাড়ীর নাম জানে সেগুলো উল্লেখ করতে বলুন। শিশুরা যখন গাড়ীগুলো নাম উল্লেখ করবে তখন আপনি নামগুলো ব্ল্যাক বোর্ডে লিখুন।

লিষ্টে অন্ততঃ নিম্নলিখিত শব্দ গুলো যেন থাকেঃ

ট্রাক	বাস
কার	ঠেলাগাড়ী
বাই-সাইকেল	রিঙ্কা
বেবি টেক্সি	টেম্পা

ট্রাফিক শব্দটা শিশুরা শুনতে নাও পারে। ব্যাখ্যা করে বুঝিয়ে দিতে হবে যে ট্রাফিক একটা সাধারণ শব্দ যা দ্বারা উপরের সব জাতের গাড়িকে বুঝায়।

এখন শিশুদের প্রত্যেক জাতের গাড়ীর বর্ণনা করতে বলুন। বেশী বর্ণনা দিতে উৎসাহিত করুন যেমন দেখতে কি রকম, কি আকৃতি, তারা কি বহন করে, কত দ্রুত চলে, তাদের ইঞ্জিন আছে কি না ইত্যাদি।

কর্মতৎপরতা তিনঃ ট্রাফিক ও পথচারীর মধ্যে পার্থক্য

পথচারী শব্দটা শিশুরা নাও শুনতে পারে। এই শব্দটা জানা তাদের খুবই জরুরী কারণ গাড়ী (ট্রাফিক) ও মানুষ (পথচারী) দুই এর মধ্যে পার্থক্য বুঝতে সাহায্য করে। ট্রাফিকের সহিত মানুষের সম্পর্ক বিষয়ে শিশুদের বর্ণনা করতে বলুন যেমন পথচারী দ্রুত চলে না আস্তে চলে। কোনটা শক্ত কোনটা নরম ইত্যাদি।

চিত্র ৩ এর ছবিগুলো ছাত্রদের দেখতে বলুন। (আপনি নিজেও ঐ রকম ছবি সংগ্রহ করে দেখাতে পারেন) ছবিদেখে ছাত্ররা যেন বলতে পারে কোনটি ট্রাফিক সংক্রান্ত তার কোনটি পথচারী সংক্রান্ত।

কর্মতৎপরতা চারঃ পথচারী ও ট্রাফিক কোথায় চলাফেরা করবে

পথচারী ও ট্রাফিকের মধ্যে পার্থক্য জানা খুবই জরুরী কারণ তারা রাস্তার নির্দিষ্ট অংশ ব্যবহার করে। বোর্ডে পূর্বে আকা ছবির প্রতি ছাত্রদের দৃষ্টি আকর্ষণ করুন। তারা এক একটি গাড়ি ও এক এক জন মানুষের নাম বলবে। এখন কি কি গাড়ী রাস্তায় চলবে এবং কি কি ফুটপাথে চলবে জিজ্ঞেস করুন।

এটি যথেষ্ট নয় যে শিউড়াদের বলা যে সড়কের পারিপার্শ্বিকতা বিপজ্জনক এবং তারা যেন নিরাপদ আচরণ করে। নিরাপদ আচরণ কি বিশদ ভাবে বলা দরকার! নিম্নের কার্যক্রমগুলি স্থূল মাঠে করা যাবে।

- রাস্তায় বা রাস্তার পাশে দৌড়ানো নিরাপদ নয় বুঝতে হবে।
- শিউড়াদের সাথে বয়স্ক একজনের হাত ধরে রাস্তায় চলচল করা জানতে হবে।
- বুঝতে হবে যে তারা যখন রাস্তায় হটছে তখন সামনের দিক থেকে গাড়ী আসছে।

কর্মতৎপরতা : এক : হাত ধরা

আপনার ক্রাসে শিউরা অল্প বয়স্ক। তাদের উপলব্ধি এখনও এমন পর্যায়ে আসে নাই যে তারা রাস্তায় নিরাপদ থাকতে পারে। তাদের সাথে বয়স্ক একজন থাকা দরকার। শিউড়াদের সাথে একজন থাকতে পারেন বা শিউরা অন্যের সাথে থাকতে পারে। সব অবস্থাতেই এক জন অন্যের হাত ধরে থাকবে।

মেক্ষেতে দুটো লাইন টেনে বলুন যেন ওটা রাস্তা। দুজন শিশুকে বলেন যে তারা নিম্নরূপভাবে রাস্তা দিয়ে হটবে। একজন শিশুকে বলেন যে সে যেন নিজেকে বয়স্ক মনে করে অন্যজন শিশু। দুজন হাত ধরে রাস্তায় ডান পাশ দিয়ে হটবে। বয়স্ক জন পাকা রাস্তার ধারে থাকবে।

কর্মতৎপরতা : দুই : রাস্তায় হটবে কিন্তু দৌড়াবে না

মাঠে শিউড়াদের দৌড়াতে, লাফ দিতে, পিছন দিকে হটতে ও সামনের দিকে হটতে বলুন। শিউড়াদের জিজ্ঞাসা করুন রাস্তার পাশ দিয়ে কোন ধরনের চলাকেরা বিপদমুক্ত। হটা হচ্ছে সবচেয়ে বিপদমুক্ত কারণ হট খাওয়ার সম্ভাবনা কম থাকে এবং যে কোন জরুরী অবস্থায় সহজে থামা যায়।

এই প্রদর্শনের কাজে দুই শিশুকে পদযাত্রার জন্য ও চার জনকে সাহায্যের জন্য দরকার হবে। এক পদচারীকে হটতে এবং অন্যজনকে দৌড়াতে বলুন এবং তাদেরকে বলুন যখনই আপনি 'থাম' বলবেন তারা যেন সঙ্গে সঙ্গে থামে। সাহায্য কারীদের বলুন ; যে যখন আপনি 'থাম' বলছিলেন তখন তারা কোন স্থানে ছিল চিহ্ন দিয়ে রাখবে এবং শেষে যেখানে থামে তথায় আবার চিহ্ন দিবে। দুই স্থানের দূরত্ব শিউড়াদের মাপতে বলুন। ব্যাখ্যা করে বুঝিয়ে দিন দৌড়ানো কেন বিপদজনক। এটাও বুঝিয়ে বলুন গাড়ী খুবই দ্রুত চলে এবং তাদের থামতে বেশ সময় লাগে।

কর্মতৎপরতা : তিন : ট্রাফিক সামনে রেখে হট

ইহা খুবই দরকারী যে শিউরা ট্রাফিক সামনে রেখে হটবে অথচ যেখানে সম্ভব রাস্তার ডান পাশ দিয়ে হটবে। ব্যতিক্রম হবে সেখানে, ডানে ফুটপাথ নাই অথচ বায়ে আছে এবং ডানে যাবার জন্য রাস্তা অতিক্রম করার সময় যদিও বিপদের আশঙ্কা থাকতে পারে।

গাড়ী চলার সময় শব্দ করে তা ইঞ্জিনের হতে পারে আবার হর্ন বা বেল বাজানোর জন্য হতে পারে। যে সমস্ত গাড়ী পিছনে থাকে তাদের শব্দ হতে তাদের অবস্থানের অনুমান করা যায়। এটা চোখে দেখার চেয়ে কম নির্ভুল। মাঠে রাস্তার পারিপাশ্বিকতা সৃষ্টি করে সামনের ট্রাফিকের গুরুত্ব শিশুদের বুঝানো যেতে পারে। যেমন :

২ মিঃ X ৫ মিঃ জায়গায় ২০ জন শিশুকে নিয়ে আসুন। তাদেরকে সামনে দিকে আস্তে আস্তে হটিতে বলুন ও হাটার সময় যেন এমন গুঞ্জন করে মনে হবে গাড়ীর শব্দ। একজন শিশুকে চোখে বন্দ করে আস্তে আস্তে পিছন দিকে হটিতে বলুন শুধুমাত্র তাদের শব্দের উপর অনুমান করে। এই শিশুটি যেন অন্য শিশুকে ধাক্কা না দেয়। এখন অন্য শিশুকে সামনের দিকে হাত দিয়ে কান বন্ধ করে হটিতে বলুন। শিশুদের বলুন কোনটা সহজ? জিজ্ঞাসা করুন চোখ না কান কোনটা দুর্ঘটনা এড়ানোর জন্য সবচেয়ে ভালো। ফুটপাথ দিয়ে বা আগত ট্রাফিক সামনে রেখে রাস্তার পাশ দিয়ে হটিতে শিশুদের জোর দিয়ে বলুন।

ছাত্রদের বলুন তারা যেন তাদের মা-বাবা ভাই-বোনদের রাস্তায় নিরাপত্তা সম্বন্ধে তারা কি শিখেছে বলবে

- শিশুরা যেন হাত ধরে চলে
- রাস্তায় যেন হাটে, দৌড়াবে না
- আগত ট্রাফিক সামনে রেখে হাটবে



ক) অন্যকে স্পর্শ না করে পিছনের দিকে চোখবন্ধ করে হাটছে



খ) সামনের দিকে কানবন্ধ করে হাটছে



শিশুরা শব্দ করে আস্তে আস্তে সামনের দিকে হাটছে।

জীপ



ফুল



ফুল ব্যাগ



মটর সাইকেল



বাস



আপেল



স্টেইট



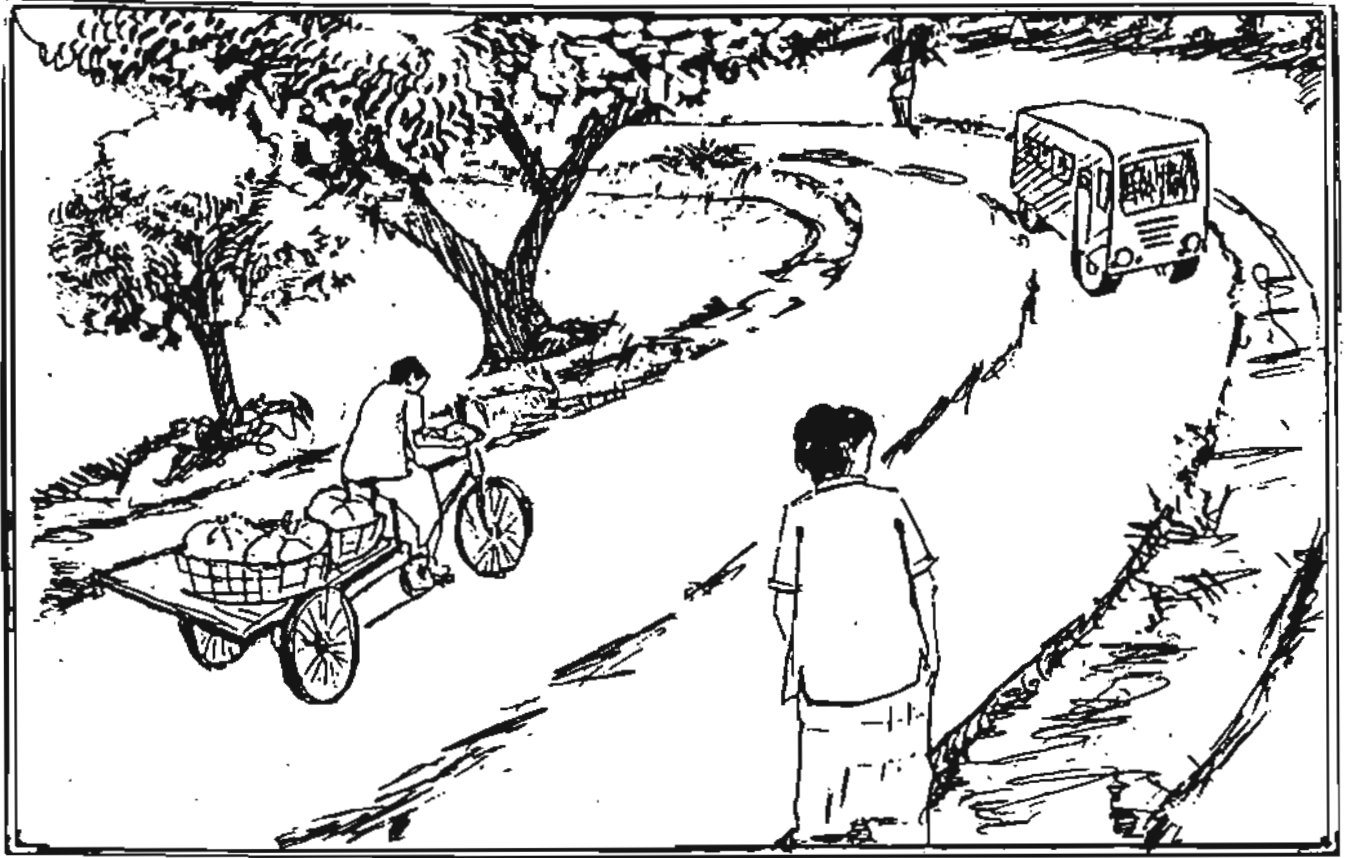


Figure 1

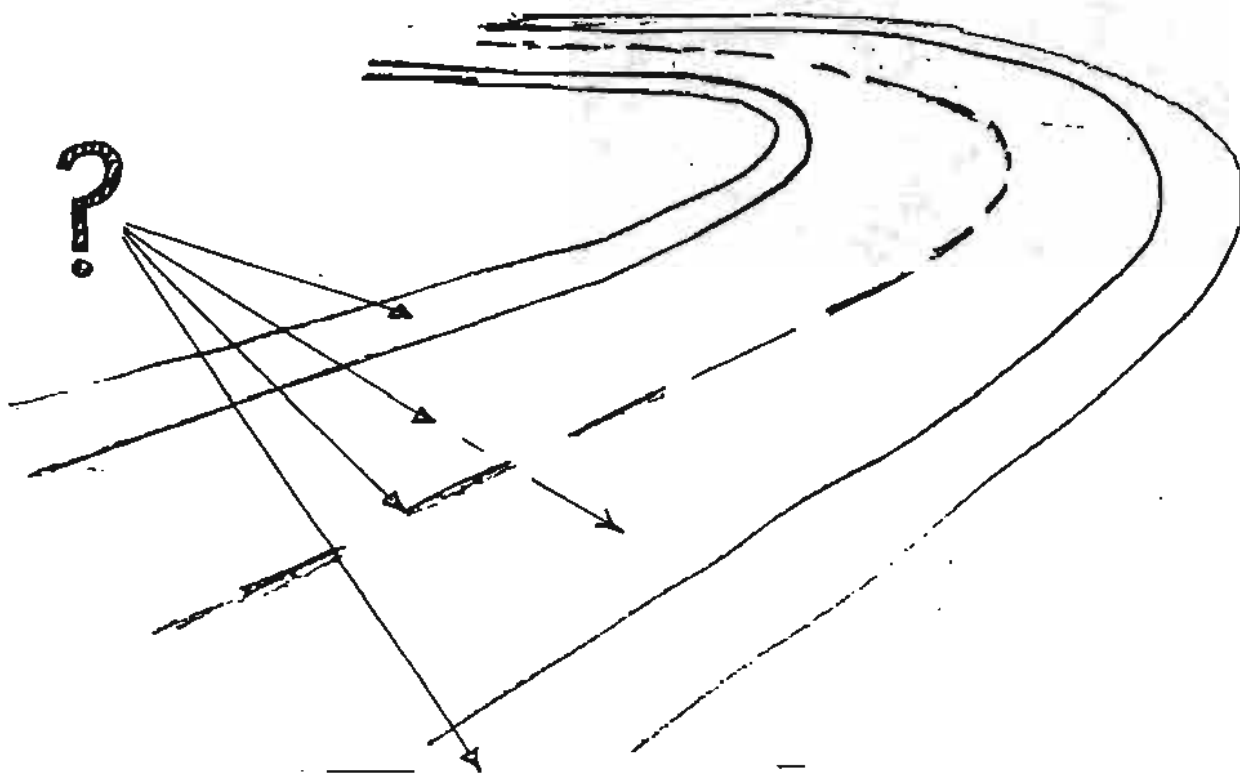
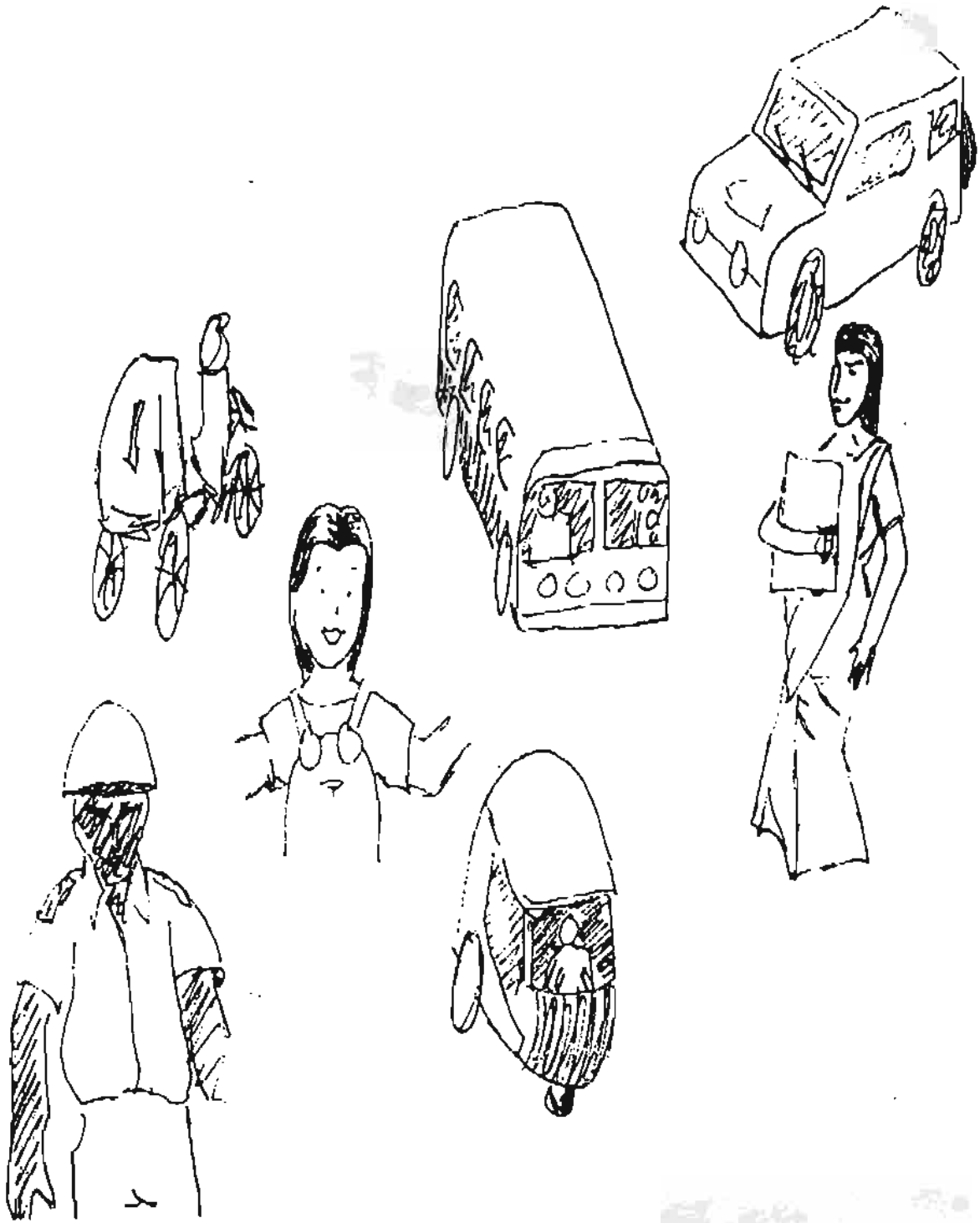


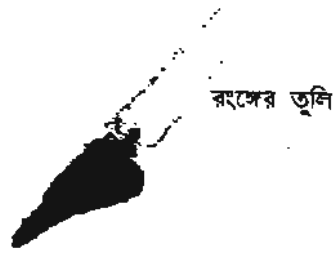
Figure 2



চিত্র - ৩



ছুরি



রংগের তুলি



গুটি



মশা



আওন



কলা



চাবি

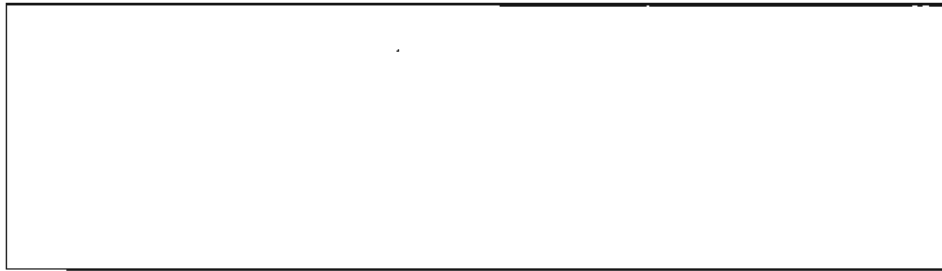


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