

**Western Australian School
Road Safety Project:
1999 Process Evaluation Report**

**Prepared by the
Centre for Health Promotion Research
School of Public Health
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Executive Summary

Western Australian teachers' satisfaction with and use of the Years K-10 WA School Road Safety Project (WASRSP) materials for 1999 is evaluated in this report. The Western Australian Office of Road Safety and Main Roads WA jointly fund this evaluation. This project recognised the importance of equipping students with appropriate road safety knowledge, attitudes and skills. The WASRSP resource materials comprise teachers' manuals and accompanying support materials.

This process evaluation was conducted by Curtin University's Centre for Health Promotion Research (CHPR) under the direction of a management committee. This committee comprises representatives from ACHPER, Education Department of WA, Health Department of WA, Police Services, WA Office of Road Safety, Main Roads WA, WA Independent Schools Association and the Centre for Health Promotion Research, Curtin University. The research objectives were to measure the:

District Based Trainers (DBT)

- Extent of district-level training on teacher implementation of school-based training;
- Trainers' levels of satisfaction with the facilitation of the district-level training; and
- Implementation rates of core competencies from the district-level training manual in school-based trainings.

School Based Teachers (SBT)

- Dissemination of the materials and teachers' awareness of their availability;
- Level of teacher satisfaction with the materials;
- Extent of implementation of the materials;
- Perception of students' learning resulting from the materials; and
- Perceptions of quality, relevance and links of the materials to the Health Education K-10 Syllabus.

A train-the-trainer workshop was held in April 1999 for current district-based trainers (DBTs). Ten of the thirteen DBTs attended this workshop. No new DBTs were trained in the dissemination of the WASRSP materials ('Kids and Roads' for primary schools and 'Road Smart' for secondary schools) in 1999. The WASRSP materials were distributed to all schools throughout Western Australia by mail/courier, early in term three of 1997. Each school received one full set of materials for each year level.

The 1999 process evaluation was conducted in three levels with the following people:

- 1 District level trainers
- 2 School-based teacher/trainers
- 3 Teachers

DBTs (n = 13) were asked to provide feedback on the WASRSP training sessions they conducted. A questionnaire asked trainers to indicate the number of teachers who attended each session, duration of the sessions, content coverage, their level of satisfaction and their need for further support to train teachers. Ten DBTs responded to the self-report questionnaire. This group reported conducting nine training sessions with the majority of training sessions being conducted with Government primary schools. Several of the DBTs conducted training sessions with teachers from secondary schools, but they did not record how many schools were represented or whether they were Government or non-Government. Nineteen schools were represented at the 1999 training sessions and 83 schools represented at the 1998 training sessions.

A cross-sectional process evaluation questionnaire targeting school-based trainers and teachers was sent to 275 schools (549 teachers) in September 1999. After the closing date for the return of questionnaires, all principals of non-responding schools (n=131) were sent a letter to advise that the return date had been extended for a further two weeks. After this extended return date, all principals of non-responding schools (n=124) were sent a second letter to encourage returns. Subsequent to this follow-up, 114 primary teachers (response rate 31%) and 61 secondary teachers (response rate 31%) completed a self-administered questionnaire. Although the questionnaires were sent out earlier in 1999, response rates for both primary and secondary teachers were lower than in the 1998 evaluation (61% primary and 48% secondary). The response

rates for 1999 were more comparable with those obtained in 1997 (34% primary and 27% secondary).

Few teachers reported receiving training associated with the WASRSP. Only 5% of primary teachers and 10% of secondary teachers surveyed had attended a district-level or school-based training session. The proportion for secondary teachers in 1999 was similar to that found in the 1998 evaluation (9%), however, slightly more primary teachers in the 1998 sample (13%) reported receiving WASRSP training compared to the 1999 sample (10%). All primary and secondary teachers who received WASRSP professional development, implemented activities from the education materials.

Over half the teachers surveyed were aware of the availability of the WASRSP materials in their schools. Of the primary teacher sample, 59% indicated their school had received the 'Kids and Roads' materials, 46% had read at least some of the materials and 43% implemented at least one activity. The 1998 sample had slightly less awareness of the materials in their schools (52%), with the 1997 sample having the greatest awareness of the materials (67%). Implementation in 1999 (43%) was higher than that achieved in 1998 (38%) and higher than was achieved in the Victorian 'Streets Ahead' program (33%).

Fifty-six percent of secondary teachers surveyed indicated their school had received the 'Road Smart' materials, with 38% having read at least some of the materials and 25% implementing at least one activity from the materials. Although awareness of the 'Road Smart' materials had slightly increased from 1998 (54%), the number of teachers who had read some of the materials has decreased from 1998 (46%) with implementation remaining similar (26%). Teachers who had taught the materials indicated satisfaction with them and believed they resulted in increased student road safety knowledge and skills.

Although care should be taken in interpreting the findings of this evaluation (due largely to sampling issues), a number of recommendations can be drawn. These recommendations include:

- **Conduct training sessions with teachers at the beginning of the school year**

The number and timing of training sessions currently being conducted with teachers is dependent on the DBTs and SBTs and their work schedules. However, respondents believed training sessions conducted at the beginning of the school year would increase the uptake of the WASRSP materials by teachers as teachers may be able to incorporate the materials into their program for the coming year. If sessions are not conducted until later in the year, teachers may be unable to incorporate the WASRSP materials in their program for that year.

- **Increase dissemination by working with other road safety-related organisations**

This was also one of the recommendations from the 1998 evaluation report. Agencies such as Road Wise and Curtin University who are currently working in schools provide an opportunity to disseminate information about the WASRSP materials and can assist in encouraging its use. Staff from these agencies would need to be trained and supported by the Project Coordinator and would benefit from the school-based expertise provided by the Project. Road Wise may also be of assistance as part of its dissemination of the Safe Routes to School program.

- **Increase the support of principals for the WASRSP materials**

The support of principals is needed to promote the DBT training sessions and also to encourage the teachers to implement the WASRSP materials. Many principals believe their teachers are already busy, so may be less inclined to promote the training sessions. Principals, therefore, need to be encouraged to include road safety education as an integral component of their school's curriculum and to promote the WASRSP materials as a valuable resource. The training sessions need to be promoted to principals so they can support teachers who wish to teach road safety education. Using networks that involve principals such as principals' conferences to present WASRSP information and materials may be useful.

- **Improve teacher access to WASRSP materials**

This was also a recommendation from the 1998 evaluation report. Further efforts are needed to increase teachers' awareness (in addition to health service and administration staff) of the availability of the WASRSP materials in their school. Initiatives such as sending the WASRSP brochure to schools to promote the project may be one possible cost-effective strategy. Other strategies could include identifying a school-based coordinator (ie: someone trained by the project) to locate the materials and advise all staff of their location and availability and if possible, conduct a mini training.

Two strategies could be employed to improve teacher access. Firstly, encourage the school-based coordinator to make additional copies for each staff member of the original materials. Secondly and perhaps more importantly, send sufficient teachers guides to schools so each teacher has his/her own copy. This would considerably enhance the quantity and quality of implementation. A small trial of teacher-based dissemination (40 schools to receive one copy per teacher and compare with the current dissemination effort in schools) will be conducted in 2000 to determine whether this expense is justified.

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1. Introduction

From the commencement of term three in 1997, the WA School Road Safety Project has distributed one copy of each of Years K-7 and 8-10 road safety education materials to all schools in Western Australia. This included all primary, secondary, government and non-government schools. Funding for this project was provided jointly by WA Office of Road Safety and Main Roads WA.

Both training and promotion strategies since 1997 were conducted by the WASRS Project. The training strategies completed were:

- One two-day train the trainer workshop conducted by the Project Coordinator;
- Regional workshops conducted by district-based trainers provided on a needs basis;
- Five workshops conducted by the Project Coordinator; and
- Lectures to education students at five tertiary institutions.

The promotion strategies conducted by the Project Director included:

- Home-based activities for students;
- Community development seminars;
- Media promotion in magazines, school newsletters and community newspapers;
- Brochures produced and distributed through 12 road safety agencies; and
- Membership of a Government Task Force for review of driver licensing and training; and
- Membership of the Australian College of Road Safety.

The Centre for Health Promotion Research (CHPR) has previously conducted evaluation reports on this project. In 1995 the CHPR commenced a two-stage evaluation of this project. Stage One, conducted from 1995 to 1996, involved an extensive formative evaluation. Results of this evaluation have been reported elsewhere (Cross et al, 1995).

Stage Two involved process evaluations to determine the extent of dissemination, satisfaction and implementation of the WASRSP training process and education materials in 1997, 1998 and 1999. The findings of the 1997 and 1998 process evaluation have been reported elsewhere (Cross et al, 1997 & Flintoff et al, 1998).

The CHPR was contracted again in 1999 to continue the process evaluation of the WASRSP. This evaluation assessed:

- Teacher satisfaction with WASRSP training and materials;
- The proportion of schools that had received the education materials;
- The proportion of teachers who had used the materials by the end of term three (October) 1999;
- The proportion of teachers who intended to use the materials during term four 1999 and in the future;
- The proportion of the education materials being used; and
- Comparisons of these measures with the 1997 and 1998 process evaluations as well as data collected in other Australian states.

Inservice training in the use of these materials was conducted at two levels. The first level included the training of representatives from District Education Offices (DEO's). These DEO representatives then trained school-based trainers (SBT). The SBTs were provided with skills to train and encourage teachers to implement the road safety education materials.

The WASRSP aims to “provide students with knowledge and skills necessary to cope with the road environment to reduce the number of children killed or injured as a result of road crashes” (Kids and Traffic Teacher Guide, 1995). The teachers’ manual provided instruction on parent and student activities. Teachers were also provided with a range of resource support, including, audiovisual materials to reinforce road safety messages.

In this study, data were collected from 13 district-based trainers (DBTs), and from 549 teachers randomly selected from all schools statewide. The teacher sample was stratified by country and metropolitan schools, government and non-government schools and further by primary and secondary schools.

2. Method

2.1 Study design

Similar to the process evaluation methodology used in 1997 and 1998, a stratified cross-sectional survey was conducted in September 1999 to determine the level of use and satisfaction of the WASRSP education materials and training. The sample consisted of primary, secondary and district high, country and metropolitan, government and non-government schools, as well as DBTs.

2.2 Subjects and sampling

2.2.1 Trainers

All of the district-based trainers (n = 13) were invited to participate in the 1999 evaluation. Each was sent a questionnaire with a reply paid envelope and a \$1 instant lottery ticket as an incentive to encourage return of the questionnaire. They were asked to respond retrospectively as best they could regarding each WASRSP training session they conducted during 1999.

2.2.2 Teachers

A proportionate stratified random sample of a total of 600 teachers (from Years 2, 4, 6, 8 and 10) was required to draw a representative group to evaluate the use of, and satisfaction with, the WASRSP teaching materials.

This sample was drawn from the 1999 WA schools database supplied by the Education Department of Western Australia.

2.2.3 Stratification

There were 1130 schools and educational facilities on the database (including Education Support Offices, District Education Centres and non-government pre-primary schools). Following the removal of inappropriate offices and centres, the sample comprised 930 schools with the following characteristics:

- metropolitan (n=507);
- country (n=423);
- government (n=665);
- non-government (n=265);
- primary schools with Years 1-7 inclusive (n=666);
- secondary schools with Years 8-10 inclusive (n=204); and
- district high schools with Years 1-10 inclusive (n=60).

Pre-primary schools were not involved in the 1999 evaluation due to budget restrictions and the amalgamation of many government pre-primary schools with primary schools.

Using this stratification (metropolitan, country, government, non-government, primary, secondary and district high schools), proportionate random sampling was conducted. The study required approximately 300 schools in total. The database of eligible schools was divided into 10 groups (five from the primary sample and five from the secondary sample). The five primary school groups consisted of; government country district high schools (n=60); government country primary schools (n=223); government metropolitan primary schools (n=287); non-government country primary schools (n=56) and non-government metropolitan primary schools (n=100), providing a total of 726 eligible primary schools.

The five secondary school groups comprised, government country district high schools (n=60); government country senior high schools (n=36); government metropolitan senior high schools (n=59); non-government country senior high schools (n=48) and non-government metropolitan senior high schools (n=61), providing a total of 264 eligible secondary schools.

The 60 government country district high schools were included in both the primary and secondary sample as they included Years 1 through 10. The district high schools selected in the primary sample were only asked to respond to the primary school components of the project (ie. 'Kids and Roads'), whereas the district high schools selected in the secondary sample were only asked to respond to the secondary school components of the project (ie. 'Road Smart'). However, there were three district high schools randomly selected in both the secondary and primary samples. They were evaluated on both the primary and secondary components of the project.

From the 726 eligible primary schools and 264 eligible secondary schools, a total of 300 were selected proportionately. The secondary schools selected represented 36% of the total school population; therefore 108 schools were randomly selected. These schools were then selected to represent the same proportions of government/non-government and country/metro as existed in the entire school population (see Table 1 for the proportionate stratified sample for primary and secondary schools). Sixty-four percent of primary schools (192 schools) were randomly selected from the total of 726 schools. The proportions were representative of the five primary school groups.

Table 1 Proportionate stratified sample framework for primary and secondary schools

	School type	Number of schools	Percentage of schools	Number of schools selected
Primary	Govt, country district high	60	8	15
	Govt, country	223	31	59
	Govt, metro	287	40	76
	Non-govt, country	56	8	15
	Non-govt, metro	100	14	27
	Total ^a	726	100	192
Secondary	Govt, country district high	60	23	25
	Govt, country	36	14	15
	Govt, metro	59	22	24
	Non-govt, country	48	18	19
	Non-govt, metro	61	23	25
	Total ^a	264	100	108

^a Percentage may not equal 100 due to rounding

Following the sampling selection process, a letter was sent to the principal of each school requesting permission to administer the questionnaire to two teachers in their school (Appendix A). The following criteria were used to select those teachers: the year level nominated, ie. Year 2, 4, 6, 8 and 10; and the teacher with his/her surname closest to the end of the alphabet of those teaching the appropriate year level. Twenty-five of the 300 principals contacted the evaluation coordinator to indicate they did not wish to participate. Hence, 275 schools agreed in principle to participate in the evaluation (primary sample = 178 from 192 selected; secondary sample = 97 from 108 selected).

To determine the Year levels to be evaluated at each primary school, the five primary school groups previously selected were each divided into thirds. The first third of each group was requested to evaluate the Year 2 and Year 4 materials, the second third of each group evaluated the Year 2 and Year 6 materials and the last third of each group evaluated the Year 4 and Year 6 'Kids and Roads' materials. All secondary schools selected were asked to comment on both the Year 8 and Year 10 materials of the high school component of the project (ie. 'Road Smart'). See Table 2 for the proportions of the sample allocated to each year group.

Table 2 **Proportion of sample allocated to each year group**

Year groups allocated	Number of schools sampled
Year 2/4	59
Year 2/6	59
Year 4/6	60
Year 8/10	97
Total	275

A total of 117 Year 2 teachers; 119 Year 4 teachers; 119 Year 6 teachers; 97 Year 8 teachers and 97 Year 10 teachers were sent questionnaires addressing their Year level. One primary school principal contacted the evaluation coordinator and asked that a questionnaire only be sent to a Year 4 teacher. As this school was selected in the Year 2/4 sample, this resulted in one less Year 2 teacher being sent a questionnaire. Therefore, 549 teachers from 275 schools (with the exception of teachers who taught more than one of the year levels being evaluated) were recruited to participate.

A total of 19 primary teachers indicated on their 1998 evaluation questionnaires that they would be willing to participate again in 1999. Of the 19 teachers, five were Year 2 teachers, ten were Year 4 teachers and four were Year 6. These teachers were added to the sample of 1999 teachers, resulting in 122 Year 2 teachers, 129 Year 4 teachers, 123 Year 6 teachers, 97 Year 8 teachers and 97 Year 10 teachers. In total, 568 teachers were sent questionnaires as part of the 1999 evaluation. This compares with 608 teachers approached in 1998 and 572 teachers in 1997 after a similar sample recruitment process.

2.3 Instrument Development

Four instruments were developed and revised for this study, one each for:

- district based trainers' workshop feedback;
- district based trainers' training experiences;
- Years 2, 4 and 6 teachers; and
- Years 8 and 10 health education teachers.

Each teacher questionnaire sought demographic information about the participants, their use of the WASRSP materials, their perceptions and attitude toward the materials, and their perceptions of changes in knowledge levels and skills in their students.

The teacher instruments from 1997 (Cross et al, 1997) provided the basis for the 1999 instruments. A number of items were modified, added and deleted to elicit more specific answers. Each questionnaire was reviewed by an expert panel consisting of Centre for Health Promotion Research and Curtin University School of Public Health staff, and the WASRSP coordinator. The panel included individuals with expertise in road safety, evaluation and research design, and educational materials development. They assessed face and content validity of each instrument.

Modifications of the instrument included:

- additional questions to determine the impact of Road Wise on the uptake of the WASRSP materials;
- enhanced presentation (spacing, use of bold and fonts);
- additional questions to compare the uptake of the WASRSP materials with other school health education resources; and
- additional questions to determine whether teachers would participate in a PD session to support the use of the WASRSP materials.

The final version of the 1999 instruments can be found in Appendices B, C and D.

2.4 Data collection

2.4.1 Trainers

Questionnaires were mailed to 13 trainers on September 28, 1999 for their completion by October 29, 1999. A follow-up phone call was made to those trainers who had not responded by the due date. Data were finalised by November 26, 1999 with ten trainers having responded. In several cases two or three trainers collaborated to provide training to teachers within the region. In 1998, 22 trainers (of the 33 surveyed) and in 1997, 32 trainers (of the 92 surveyed) responded to a similar questionnaire.

2.4.2 Teachers

Data were collected from teachers during October to November 1999. Due to the low response rate, two follow-ups were conducted using reminder mailouts. All principals of non-responding schools were sent a letter to advise that the return date for completed questionnaires had been extended and to ask that they encourage teachers to complete the questionnaires (Appendix E). After the extended due date, principals of non-responding schools were sent another reminder letter to further encourage returns (Appendix F). The two follow-up letters resulted in 16 additional questionnaires being received. Data collection was completed by November 26, 1999.

Each questionnaire took approximately ten minutes to complete. Teachers who had not received or utilised the materials to date, were instructed to skip to subsequent questions regarding other resources used to teach road safety and demographic details. Teachers were strongly encouraged to return their questionnaire even if they had not taught from the WASRSP materials.

Three strategies were used to maximise return rates. Reply-paid envelopes were attached to each questionnaire and the covering letter to teachers stated they had the opportunity to win a \$50 Myer gift voucher. The gift voucher was offered as an incentive to encourage questionnaire return by the due date. Thirdly, a glossy brochure alerting teachers to the WASRSP and the appearance of the educational materials was attached to the questionnaires (Appendix G).

All data collected from teachers were treated as confidential. Coding to identify each teacher was printed only on the cover letter of the questionnaire (Appendices B, C and D).

Questionnaires were returned by 114 primary school and 61 secondary school teachers (See Table 3). Response rates were the same for both the primary and secondary sample (31%).

Table 3 Response rates amongst teachers in each Year group

	Year group taught	Number of responses	Response Rate (%)
Primary	Year 2	48	39
	Year 4	38	29
	Year 6	28	23
	Total ^a	114	31
Secondary	Year 8	30	31
	Year 10	31	32
	Total ^a	61	31

a =percent age may not equal 100 due to rounding

Teachers were also asked if they would be willing to participate in future evaluations of this project. A list of those teachers is attached in Appendix H.

The 1999 evaluation response rates were 30% lower in the primary sample and 17% lower in the secondary sample than those achieved in the 1998 evaluation. Sixty one percent of primary teachers and 48% of secondary teachers responded to the 1998 evaluation. In 1997 the response rates were 35% for primary and 14% for secondary teachers. Therefore, the response rates were highest in the 1998 evaluation.

3. Results

3.1 Trainers

Ten of the 13 District-Based Trainers (DBTs) returned a completed questionnaire (response rate 77%). Nine (69%) of the DBTs attended a train-the-trainer workshop in 1999. These DBTs conducted a total of nine different training sessions; the previous WASRSP coordinator conducted three of these sessions. Most commonly the trainings occurred at District Education Offices and were three hours in duration. Eight of the DBTs attended the 1998 train-the-trainer workshop and seven attended the 1997 workshop. The DBTs conducted 16 WASRSP training sessions in 1998 and 19 sessions in 1997. Hence, since 1997, 44 training sessions have been conducted. The number of training sessions however, has declined each year.

All of the DBTs who had conducted training sessions found the WASRSP training manual to be very useful. The majority believed teachers were either very satisfied (80%) or satisfied (20%) with the training. Only one of the DBTs indicated he/she was unsure about receiving more support to conduct the training sessions.

Of the ten DBTs, four (40%) conducted no WASRSP training sessions in 1999, four (40%) conducted one training, one (10%) conducted two training sessions and one (10%) conducted three different trainings. The number of participants at each session varied from three to 20 teachers (the median was nine). The names of the 19 schools represented at the 1999 WASRSP training sessions are attached in Appendix I. The number of schools represented is higher than shown, as two of the trainers did not have a record of the schools represented at their training sessions. In 1998 there were 83 schools represented at the WASRSP training sessions.

The majority of DBTs addressed all the suggested content when conducting their training sessions (Table 4). All of the DBTs who completed a questionnaire and conducted training sessions included a discussion about the rationale for road safety education, reviewed the structure and content of teacher's guides and provided examples of road safety knowledge activities in their training sessions. One of the trainers had not conducted any training sessions, hence the percentage does not equal 100 in Table 4. For the next three components, which were examples of road safety attitude activities, road safety skills activities and programming for road safety, the percentage of trainers who covered this content was 80%. The remaining 20% comprised the one trainer who did not conduct any training sessions and one trainer who could not remember whether she/he had covered these areas.

As in 1998 (50%), the issue addressed by fewest of the DBTs in 1999 was how to involve parents and the community (60%). A review of road safety education for primary and secondary schools has also been conducted in NSW (Road Traffic Authority, 1994). Most NSW teachers surveyed believed it was important to involve parents to increase the effectiveness of road safety education. Of the 649 primary teachers who responded to the questionnaire in NSW, 89% indicated that parents should be involved. Eighty-one percent of the 301 secondary teachers surveyed believed that parents should be involved in road safety education.

Table 4 Content covered by the district-based trainers during teacher training sessions

Possible Contents	Percentage of DBTs who covered this content in	Percentage of DBTs who covered this content in	Percentage of DBTs who covered this content in
	1997	1998	1999
	%	%	%
Rationale for road safety education	96	93	90
Review structure and content of teacher's guides	96	93	90
Example of road safety knowledge activities	96	93	90
Example of road safety attitude activities	92	93	80
Example of road safety skills activities	100	93	80
Programming for road safety	75	56	80
Involving the parents and the community	96	50	60

The DBTs suggested a number of strategies to improve teacher implementation of the WASRSP education materials. Firstly, the training workshops were more beneficial to teachers when conducted at the beginning of the school year. Teachers who receive professional development in the WASRSP materials at the beginning of the school year still have the opportunity to include the materials in their school program. If teachers attend a training session towards the end of the year, their program may already be 'full' so they are unable to accommodate the WASRSP materials. The need for training sessions to be conducted at the beginning of the school year to fit in with programming was also seen as important in the review of the Safe for Life education materials in the ACT (Drysdale, 1997).

Several DBTs expressed the need to involve other people and organisations with the promotion of the WASRSP materials. The DBTs had many work commitments, of which road safety is only one component. It was therefore, difficult for them to allocate time to conduct training sessions for teachers. The number of DBTs involved in the promotion of the materials has also declined from 92 in 1997 to just 13 in 1999.

Promotion of the materials to principals and teachers was also seen as vital. Principals often report their teachers were already overloaded with curriculum frameworks and student outcome statement related changes, so may not have promoted the training sessions offered by the DBTs. Teachers require training sessions to share information and develop teaching strategies in relation to road safety education (Shaddock & Plummer, 1997). Schools are also provided with many different resources, however, the issue is ensuring teachers are aware that WASRSP resources are available and giving them access to copies.

3.2 Teachers

Due to the differing nature of the schools, materials and response rates, separate analyses were conducted for primary and secondary teachers in this evaluation. A total of 114 primary teachers (response rate 31%) and 61 secondary teachers (response rate 31%) completed and returned questionnaires. It is acknowledged that some of the schools sampled may only have one teacher in each year level, and in some cases, one teacher teaching a range of years.

3.2.1 Primary

There was an equal distribution of primary (31%) and secondary (31%) teachers who completed the questionnaires. Their demographic characteristics are summarised in Table 5. Most of the primary school teachers surveyed were female (80%) and employed in a full-time capacity (87%), with a wide range of teaching experiences. Forty-seven percent of the sample had taught for between 10 and 20 years, 18% for more than 20 years and 33% had been teaching between one and nine years. Only one teacher from the sample had been teaching less than one year. The sample had less experience teaching road safety as part of health education than total teaching experience, with 28% teaching this subject for between 10 and 20 years. Nine percent indicated they had taught road safety for more than 20 years. The majority were from government schools (76%) and taught in the metropolitan region (54%). A small proportion of those sampled (4%) indicated they had been involved in the Child Pedestrian Injury Prevention Project during the previous three years.

Table 5 Demographic characteristics of the primary teachers in 1997, 1998 and 1999

		1997	1998	1999
		%	%	%
Gender	Female	89	78	80
	Male	11	18	20
Teaching Status	Full-time	85	84	87
	Part-time	14	10	12
	Other	1	3	1
Teaching Experience	<1 year	3	2	0.9
	1-3 years	13	12	12
	4-6 years	27	13	13
	7-9 years	0	7	8
	10-20 years	37	40	47
	More than 20 years	21	22	18
Road Safety Education Experience	<1 year	n/a	9	5
	1-3 years	n/a	21	25
	4-6 years	n/a	14	18
	7-9 years	n/a	12	14
	10-20 years	n/a	29	28
	More than 20 years	n/a	11	9
Teaching Sector	Government	60	84	76
	Non-government	40	16	24
School Location	Metropolitan	55	56	54
	Country	45	44	46

n/a not available

Forty-seven percent of respondents indicated they were involved as teachers in the 'Kids and Roads' program (47%). A similar percentage were not involved in the program (47%). Three percent were unsure of their role. School-based trainers constituted the remainder of the sample (2%).

The majority (86%) had not received district-based professional development related to the 'Kids and Roads' program, 5% had received district-based teacher training, whilst a further 5% were trained by school-based trainers. None of the teachers had received training in 1999. Nine percent of the 1998 sample had received WASRSP professional development and 11% of the 1997 sample. Of the 10% of respondents in

1999 who had received training in previous years, 58% (n=7) believed they taught more road safety education since attending the training. Twenty five percent (n=3) believed they taught approximately the same amount of road safety education before the training as they had done since attending the training. Eight percent (n=1) claimed they had not taught road safety education until the training. One teacher did not complete the question.

The majority of respondents (59%) indicated their school had received the appropriate 'Kids and Roads' materials (Figure 1). This proportion was slightly higher than the 1998 sample where 52% of the sample recalled their school receiving the materials, but less than the 1997 sample (67%). Whilst only 9% of schools claimed they had not received the materials, a further 33% were unsure if their school had received these materials. Of the entire 1999 sample (not just those who were aware of the materials), 42% had read none of the materials, 21% had read some, 18% had read most, 7% indicated they had read all of the materials, 3% were not sure and 9% did not complete the item. The same percentage (46%) in 1998 had read at least some of the materials with a higher percentage in 1997 (56%).

Twenty percent of the primary teacher sample (n=23) indicated that they had involvement with Road Wise. Seventy-four percent of this sample (n=17) believed that the involvement with Road Wise had a positive influence on their teaching of the 'Kids and Roads' materials, with 22% (n=5) being unsure of the influence. Four percent did not complete this question (n=1).

Forty-five percent (n=24) of the sample who had read the materials, indicated they intended to teach the 'Kids and Roads' materials in term four of 1999 following this evaluation. Seventy-eight percent of the teachers who had read the materials believed they might teach the materials in 2000 (Figure 1). Of those teachers who indicated they intended to teach the materials in term four of 1999 the majority (96%) indicated they would use the material in its existing form. Only one teacher indicated they would slightly modify the materials to consolidate the concepts as she/he had taught the same children for two years.

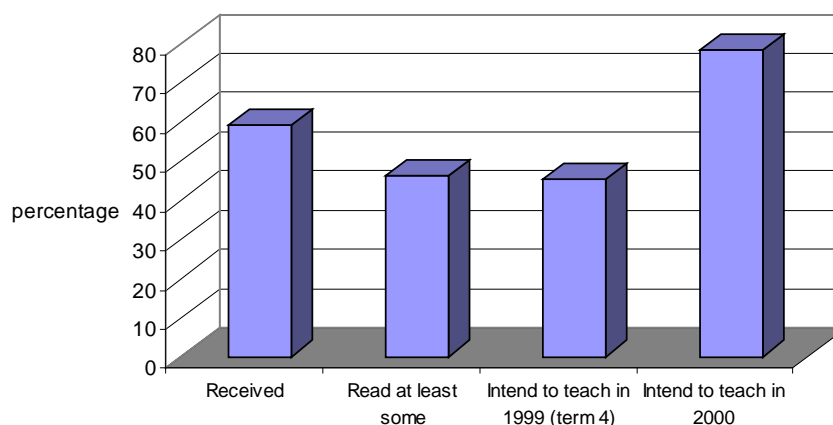


Figure 1 1999 'Kids and Roads' dissemination and current and future implementation

Of those teachers who intended to teach the materials in term four of 1999, 29% claimed that between February and October 1999 they had spent approximately four or more hours teaching road safety from the 'Kids and Roads' materials. Thirteen percent claimed that they spent between three to four hours, 25% between two and three hours, 13% between one and two hours and 21% did not teach the program between February and October 1999.

Of the teachers in 1999 who had read at least some (46%) of the materials, the majority (92%) had taught one or more activities. Thirty-eight percent of teachers who taught from the 'Kids and Roads' materials had used five or more activities to teach road safety, 26% had taught between three to four activities and 28% had taught between one to two activities. Eight percent had taught none of the activities.

Most teachers who had implemented the 'Kids and Roads' activities indicated the resource had led to students learning some (67%) or a lot (29%) of new information. Four percent of teachers were unsure how much new information their students had learned. None of the teachers sampled indicated that their students already knew the concepts or that they had learned anything from the 'Kids and Roads' materials. In 1998, 3% of the sample claimed their students had learnt nothing from the materials and 4% indicated their students already knew these concepts.

The most commonly used components of the 'Kids and Roads' materials were the teacher's notes (100%) and the class activities (100%). Whole of school activities (20%) and home activities (16%) were the least used components. Small variances in the use of the different components occurred between teachers of different Year groups, in particular the resource sheets being used to a greater degree by Year 2 teachers and the poster being used to a greater degree by the Year 4 and Year 6 teachers. None of the Year 4 teachers implemented the home activities and none of the Year 6 teachers used the resource list. A summary of the responses from 1997, 1998 and 1999 is presented in Table 6.

Table 6 Summary of 'Kids and Roads' components used by primary teachers

Component	Year 2	Year 2	Year 2	Year 4	Year 4	Year 4	Year 6	Year 6	Year 6	Total	Total	Total
	1997	1998	1999	1997	1998	1999	1997	1998	1999	1997	1998	1999
	%	%	%	%	%	%	%	%	%	%	%	%
Teacher's notes	72	92	100	71	97	100	76	86	100	73	93	100
Background notes	45	75	75	63	97	86	65	83	67	56	85	76
Class activities	72	92	100	71	100	100	88	86	100	77	94	100
Home activities	24	32	17	8	18	0	12	13	33	16	22	16
Whole of school activities	10	0	17	4	14	14	18	21	33	10	11	20
Resource list	24	29	17	17	54	29	41	38	0	26	40	24
Resource sheets	62	87	83	50	93	86	59	74	50	57	86	76
*Book	55	68	58	42	75	71	53	53	67	50	67	64
*Poster	41	81	58	17	75	100	47	50	100	34	72	80
*Video	52	93	58	33	54	86	35	47	67	41	69	68
*Audio tape	55	75	58	8	33	43	24	8	17	31	47	44
*Road sign kit	n/a	72	67	n/a	70	86	n/a	33	67	n/a	64	72
*Discussion poster kit	n/a	48	50	n/a	48	43	n/a	33	50	n/a	44	48

* not all components were provided for each year level but may have been available within the school
n/a data not available

The majority (79%) of those who had taught some of the 'Kids and Roads' materials claimed they did not need more help to teach these materials, however 13% indicated they would like help and 8% were unsure. The two reasons for requiring more help were the need for a training session and for the local council/police to be involved. Respondents most commonly indicated some parents (58%) would be aware that road safety education was being conducted in school, 19% that most parents would be aware of this, whilst 15% indicated no parents in their school would be aware of the program.

Respondents were asked questions related to the opportunity to participate in a free PD program by flexible learning to support the 'Kids and Roads' materials. The majority (55%) indicated they would consider participating and 30% claimed they would definitely participate. If a PD program was offered, 92% of respondents indicated that they would prefer a hard copy package of materials supported by a tutor and 8% would prefer an Internet based package of materials supported by a tutor.

Of those who intended to utilise the 'Kids and Roads' materials in 2000 (n=24), the majority thought most (66%) or all (25%) of the activities were developmentally appropriate for their students. The materials were thought to be well (71%) or adequately (25%) linked to the Health Education K-10 Syllabus, however 4% were unsure about these links. Respondents indicated that links to other subject areas were provided some of the time (75%) or most of the time (25%).

All respondents answered questions relating to the use of materials other than 'Kids and Roads' to teach road safety (Table 7). Children's own experiences (73%), the Health Education K-10 Syllabus (68%) and existing school resources (52%) were the materials most commonly used.

Table 7 Resources most commonly used to teach road safety education

Resource	Percentage Using	Percentage Using
	1998	1999
Out and About – Federal Office of Road Safety	14	9
Road Smart – WASRSP secondary materials	2	4
Children’s own experiences	62	73
Health Education K-10 Syllabus	64	68
Newspaper Articles	26	33
School newsletter	17	23
School excursions	27	38
Existing school resources eg. videos or worksheets	40	52
Bike education kit	28	26
Constable Care road safety activity sheets	48	48
Sci-Tech road safety exhibition	3	6
Police Service road safety program	11	21

To compare the uptake of the ‘Kids and Roads’ materials with other school resources, teachers were asked to indicate what resources were most commonly used in their school’s health education program (Table 8). The most commonly used resources were the Health Education K-10 Syllabus (92%), followed by Heart Health (53%), Constable Care (49%) and then the School Drug Education (SDEP) Teacher Support Package (45%). Thirty-eight percent of teachers believed that the ‘Kids & Roads’ materials were used in their school’s health education program.

Table 8 Resources most commonly used in primary school health education programs

Resource	Percentage Using 1999
Health Education K-10 Syllabus	92
Life Education van	40
SDEP Drug Education Teacher Support Package K-12	42
Health Department School Drug Education Materials	35
Kangaroo Creek Gang	31
Heart Health	53
Constable Care	49
Re-thinking Drinking	2
Candidly Cannabis	1
SHAHRP materials	0
'Kids and Roads' materials	38
"How will you feel tomorrow?"	2
Health Education K-10 Syllabus, HIV Supplement	15

3.2.2 Secondary

Thirty-one percent of the secondary sample completed questionnaires. Their demographic characteristics are summarised in Table 8. More female secondary teachers (72%) completed the questionnaire than male (28%). The majority were employed in a full-time capacity (93%). They had a wide range of experience teaching health education. Twenty-eight percent had taught Health Education for between one and three years and 26% for between 10 and 20 years. The sample had less experience teaching road safety as part of health education. Most commonly teachers had less than one year of experience teaching road safety (34%) or one to three years experience (34%) followed by four to six years experience (20%). The majority were from government schools (66%) and taught in the metropolitan region (61%).

Table 9 Demographic characteristics of the secondary teachers in 1998 and 1999

		1998	1999
		%	%
Gender	Female	57	72
	Male	41	28
Teaching Status	Full-time	87	93
	Part-time	6	5
	Other	3	2
Health Education Teaching Experience	<1 year	14	5
	1-3 years	24	28
	4-6 years	14	21
	7-9 years	15	12
	10-20 years	20	26
	More than 20 years	9	8
Road Safety Education Experience	<1 year	42	34
	1-3 years	28	34
	4-6 years	4	20
	7-9 years	5	2
	10-20 years	10	10
	More than 20 years	4	0
Teaching Sector	Government	67	66
	Non-Government	33	34
School Location	Metropolitan	54	61
	Country	46	39

Just over half of the sample (53%) indicated they had not been involved with the 'Road Smart' program as teachers or school based trainers, 31% were involved as teachers and 7% as school-based trainers and teachers. Ten percent were unsure of their role in the program.

The vast majority (89%) had not received district-based professional development related to the 'Road Smart' program in 1999 and six teachers (10%) had received district-based teacher training. Seven teachers (9%) in 1998 and only one teacher (8%) surveyed in 1997 had attended a training session. Of the six teachers in 1999 who had received training associated with the 'Road Smart' program, three teachers believed that they taught more road safety since the training. One teacher indicated

that she/he taught about the same amount of road safety since the training session and two teachers indicated that they had not taught road safety before the training session.

Thirty-one percent (n=19) of the secondary sample indicated that one other teacher in their school taught health education in the same year as themselves. Thirteen percent (n=8) indicated no other teacher taught health education in the same year as themselves and 13% (n=8) indicated that two teachers taught the same year of health education as themselves. The majority (51%) believed that no other teachers in their school were using the 'Road Smart' materials and 23% did not know whether other teachers were using the materials. In 1998 the majority either did not know if other teachers in their schools were using the 'Road Smart' program (44%) or did not answer the question (52%). Twelve percent of teachers in 1999 indicated that they knew of other teachers in their school using the resource, which is comparable to the 1998 sample (13%).

Fifty-six percent (n=34) of the respondents indicated their school had received the appropriate 'Road Smart' materials (Figure 2). Fifty-four percent of the sample in 1998 and 69% in 1997 indicated their school had received the materials. In 1997 however, only thirteen teachers responded to the questionnaire. Twenty percent (n=12) of respondents in 1999 were unsure if their school had received the materials, whilst 25% (n=15) claimed the materials had not been received in their school.

Of the entire sample, 36% (n=22) had read none of the materials, 23% (n=14) had read some, 12% (n=7) had read most and 3% (n=2) all of the materials. Two percent (n=1) of the sample were unsure and 25% (n=15) did not complete the question. Of the teachers who had read at least some of the materials (38%), over half had taught one or more activities (65%). Of this 65% (n=15), 13% taught one to two activities, 35% taught three to four activities and 17% taught five or more activities. Thirty-five percent indicated that they had not used any of the 'Road Smart' activities to teach road safety.

Of the teachers who had read at least some of the 'Road Smart' materials (38%), thirteen percent (n=3) indicated that their school had been involved with Road Wise. Of these three teachers, two claimed that their school's involvement with Road Wise had a positive influence on their teaching of the 'Road Smart' materials, with one indicating that she/he was unsure of the influence of Road Wise.

Of those respondents who indicated they had read at least some of the materials (n=23), 26% (n=6) indicated they intended to use the 'Road Smart' materials later in 1999, 26% (n=6) claimed they would not use the materials in 1999 but maybe in the year 2000 and 35% (n=8) would not be using the materials in either 1999 or 2000. Thirteen percent (n=3) were unsure about their future use of the 'Road Smart' materials. Five of the six teachers who intended to teach the materials in 1999 would also use the 'Road Smart' materials in 2000. Forty-eight percent of respondents therefore indicated that they may use the materials in 2000 (Figure 2).

Of the six teachers who indicated they would be using the 'Road Smart' materials later in 1999, five of the teachers indicated they would utilise the 'Road Smart' materials in their existing form to teach road safety in 2000 and one was unsure about her/his use of the materials in 2000. Two of the six respondents claimed that between February and October 1999 they spent between one to two hours teaching road safety from the 'Road Smart' materials. Two indicated they spent between two and three hours, one taught between three and four hours and one teacher did not teach the program.

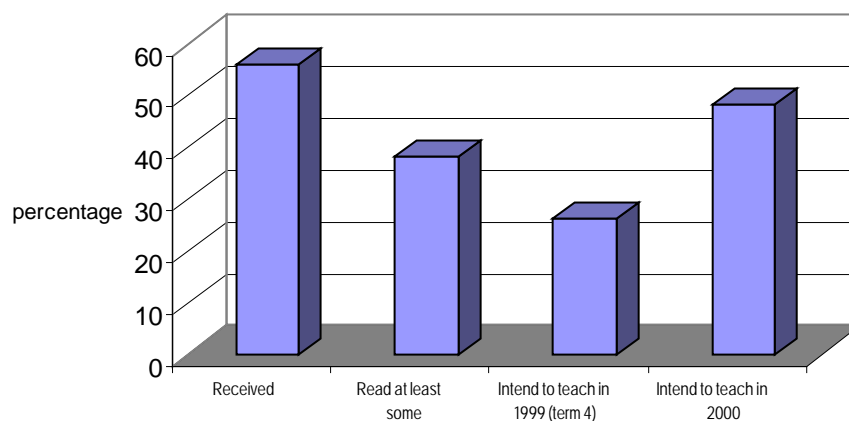


Figure 2 1999 ‘Road Smart’ dissemination and current and future implementation

Of the six teachers (10%) who intended to use some or more of the ‘Road Smart’ materials later in 1999, five believed that their students had learned some new road safety information from the resource and one was unsure about how much new information her/his students had learned the materials. Five teachers also indicated their students had learned new road safety skills from the ‘Road Smart’ materials with one teacher being unsure how many new road safety skills had been learnt.

The most commonly used components of the ‘Road Smart’ materials for the six teachers were the teacher’s notes (84%), class activities (83%) and background notes (67%). Whole school activities and the resource list were not used by any of the teachers. In 1998 the teacher’s notes (92%), class activities (92%) and resource sheets (87%) were the most commonly used components. A summary of the responses is presented in Table 10.

Table 10 Summary of ‘Road Smart’ components used by secondary teachers in 1998 and 1999

Component	Response rate	Response rate
	1998	1999
	%	%
Teacher’s notes	92	84
Background notes	75	67
Class activities	92	83
Home activities	32	33
Whole of school activities	0	0
Resource list	29	0
Resource sheets	87	33
*Video	93	17

* not all components were provided for each year level

Of those teachers who have read at least some of the ‘Road Smart’ materials and intended to use the materials later in 1999 (n=6), four teachers claimed they did not want more help to teach the materials, one teacher indicated she/he would like help and one teacher was unsure. Half of the respondents (3 teachers) indicated they were not sure if their students’ parents would be aware that road safety education was being conducted in the school. Two respondents indicated that some of the students’ parents would be aware of this and one respondent claimed that most parents would be aware of the program.

Two of the six teachers indicated that they would definitely participate in a free PD program offered by flexible learning, to support the use of the 'Road Smart' materials. Two teachers would consider participating and two teachers would definitely not participate in the PD program. Of the six teachers, the majority (five teachers) indicated the preferred method of delivery for a PD program would be a hard copy package of the materials supported by a tutor. One teacher indicated she/he would prefer an Internet based package of materials supported by a tutor.

Four of the six teachers indicated that all of the 'Road Smart' classroom activities were developmentally appropriate for their students. One of the teachers believed that most of the activities were developmentally appropriate and one teacher was not sure whether the activities were developmentally appropriate. Four teachers believed that the materials were adequately linked to the Health Education K-10 Syllabus, whilst two teachers were unsure about the link. Fifty-two percent of respondents in 1998 indicated that the materials were well linked to the syllabus. None of the teachers indicated this in 1999.

All respondents answered questions related to the use of materials other than ‘Road Smart’ to teach road safety (Table 11). The Health Education K-10 Syllabus (41%), newspaper articles (36%) and students’ own experiences (33%) were most commonly used. In 1998, students’ own experiences (44%), the Health Education K-10 Syllabus (42%) and existing school resources (39%) were the most commonly used resources.

Table 11 Resources most commonly used to teach road safety education

Resource	Percentage Using	Percentage Using
	1998	1999
Kids and Roads – WASRSP primary materials	1	5
Student’s own experiences	44	33
Health Education K-10 Syllabus	42	41
Newspaper Articles	32	36
School newsletter	9	3
School excursions	6	5
Existing school resources eg. videos or worksheets	39	30
Sci-Tech road safety exhibition	3	5
Police Service road safety program	22	22

To compare the uptake of the ‘Road Smart’ materials with other school resources, all secondary teachers were asked to indicate the resources most commonly used in their school’s health education program (Table 12). The most commonly used resources were the Health Education K-10 Syllabus (95%), followed by the School Drug Education Project (SDEP) Teacher Support Package K-12 (89%) and then Candidly Cannabis (74%). Thirty percent of teachers believed the ‘Road Smart’ materials were used in their school’s health education program.

Table 12 Resources most commonly used in secondary school health education programs

Resource	Percentage Using 1999
Health Education K-10 Syllabus	95
Life Education van	3
SDEP Drug Education Teacher Support Package K-12	89
Health Department School Drug Education Materials	61
Kangaroo Creek Gang	5
Heart Health	48
Constable Care	13
Re-thinking Drinking	69
Candidly Cannabis	74
SHAHRP materials	15
‘Road Smart’ materials	30
“How will you feel tomorrow?”	59
Health Education K-10 Syllabus, HIV Supplement	61

The School Drug Education Project Teacher Support Package K-12 (SDEP) was provided to all schools in WA. Eighty-nine percent of the secondary teachers indicated that the SDEP teacher package was a commonly used health education resource in their school. This compares to just 30% for the 'Road Smart' materials. Although it would be difficult to determine one specific reason for the difference in uptake of materials, one factor which should be considered is in the dissemination of the materials. The WA School Road Safety Project distributed one copy of road safety education materials to all schools in WA. In contrast, the SDEP resource was distributed by providing approximately one resource for every ten teachers in a school. If the total number of teachers in a school were not divisible by ten, then more books would be sent. For example, if there were 34 teachers in a school, four books would be sent.

4. Discussion

4.1 Limitations

The results of this evaluation are cross-sectional in nature and have limited validity. Care should be taken in generalising these results to the entire population of teachers in WA. A number of teachers contacted the evaluation coordinator to ask whether they should participate in the evaluation as they had not implemented any of the program. All the requirements of the questionnaire were fully explained and they were strongly encouraged to participate. However, it is likely that other teachers chose not to participate for similar reasons. Comprehensive follow-up procedures and the provision of incentives were used to increase response rates. Higher response rates would have increased the validity and generalisability of these findings.

4.1.1 Trainers

The retrospective recruitment of trainers following implementation of their training sessions introduces a number of potential biases. Recall bias may have occurred where respondents were unable to remember all events related to the training sessions they conducted. The number of DBTs who were asked to participate since the first evaluation has also decreased from 92 in 1997 to 13 in 1999. The majority of trainers responded to the questionnaires, but reminder phone-calls did need to be made. Also, several of the trainers had moved from the districts the WASRSP Coordinator provided, therefore replacement surveys had to be sent to those trainers.

There were no new DBTs trained in the road safety materials in 1999. Nine of the ten trainers who responded to the survey attended the train-the-trainer workshop in 1999, eight attended the workshop in 1998 and seven attended the 1997 trainer workshop. Consideration needs to be given to the small number of DBTs surveyed in 1999 when analysing the results.

4.1.2 Teachers

Hawe, Degeling and Hall (1990) suggest cross-sectional surveys should attempt to achieve a response rate of 65% or greater as non-respondents may be dissimilar to those who have responded. Higher response rates for both the sample of primary teachers (response rate of 31%) and secondary teachers (response rate of 31%) would therefore have been desirable and increased the validity of the results. The response rates in 1999 were similar to 1997 (response rate 34% for primary and 27% for secondary) with the highest response being achieved in 1998 (response rate 61% for primary and 48% for secondary).

The surveys were sent out earlier in 1999 to improve response rates, than in both 1998 and 1997. The same incentive in 1999 (the chance to win a \$50 Myer gift voucher) as in 1997 was offered. It would appear the instant lottery incentives that were provided with all surveys in 1998 contributed to the improved response rates. A study conducted by Chapman & Leng Wong (1991) concluded lottery ticket incentives increased response rates. In their study of smokers and ex-smokers, a 5.2-fold increase in returns was achieved in a subsample of non-respondents who were sent a reminder letter with a lottery ticket compared with those who were not sent lottery tickets.

Sixty-nine percent of primary and 69% of secondary teachers in the sample did not respond to this questionnaire. Further, the 25 schools (8%) whose principals contacted the evaluation coordinator to decline involvement in the project, may have been significantly different from those schools and teachers who agreed to participate. This selection bias was unavoidable given the non-compulsory nature of the WASRSP and its evaluation. Efforts were made to reduce selection bias by stratifying the sample and randomly selecting schools from each strata. To minimise selection bias at a school level, principals were requested to select the teacher in the appropriate year group with the surname closest to the end of the alphabet.

Issues of implementation of the WASRSP materials were affected by the lack of dissemination or lack of awareness of dissemination of the education materials. Forty-one percent of primary of teachers and 44% of secondary teachers did not know if their school had received the WASRSP materials. This reduced the sample size for the evaluation of satisfaction with and dissemination of the materials. The sample size was further reduced because only those teachers who were intending to use the WASRSP materials in term 4 of 1999, were asked to complete the questions related to satisfaction with the materials. This resulted in only 10% of the total secondary sample completing these questions.

4.2 Summary of findings

4.2.1 Trainers

Fewer DBTs have been surveyed for each evaluation. For the first evaluation in 1997, there were 92 DBTs surveyed (29 responded), in 1998 there were 33 (22 responded) and in 1999 only 13 (10 responded) DBTs. As only 13 DBTs were surveyed in 1999, limited comparisons can be drawn with 1997 and 1998 data. The ten trainers who responded conducted nine training sessions in 1999. The previous Project Coordinator completed three of these training sessions.

In all years, the majority of the DBTs covered key content areas. The two areas covered by fewer DBTs in 1999 and 1998 were programming for road safety and involving parents and the community in the program. These issues could be covered in greater detail at future in servicing of DBT representatives. The majority of teachers surveyed in NSW, involved parents in road safety education by providing printed information to parents or they spoke about road safety education at parent meetings (Road Traffic Authority, 1994).

The DBTs suggested three strategies to improve teacher implementation of the WASRSP education materials. Firstly, the need for training sessions on the materials to be conducted at the beginning of the school year to fit in with programming. Secondly, several DBTs also expressed the need to involve other people and agencies with the promotion of the WASRSP materials. As mentioned previously, the number of DBTs involved in the promotion of the materials has also declined from 92 in 1997 to just 13 in 1999. Involving other people from road safety-related organisations would raise awareness of the materials, potentially increasing implementation of the materials. Greater awareness of resources available to teachers is the third strategy identified by the DBTs. In the evaluation of the Street Smart Street Safe Kit, Shaddock & Plummer (1997) found that throughout Australia, schools have many attractive and valuable kits that have not been appropriately explained or developed. Schools are therefore, being provided with many different resources, often with teachers unaware of their availability.

4.2.2 Primary teachers

The primary teachers sampled (n=114) were predominantly experienced full-time teachers who taught in government schools. Only 5% of surveyed teachers had received district-based professional development in 1999. This result is lower than for both 1998 (13% of teachers) and 1997 (11% of teachers). The small percentage of surveyed teachers who had received district-based professional development should be examined in conjunction with the number of DBTs currently associated with the WASRSP (13 DBTs) and the number of training sessions they indicated had been conducted in 1999 (nine training sessions). Both the number of DBTs and the number of training sessions conducted in 1999 were lower than in 1997 and 1998.

Fifty-nine percent of the primary teachers indicated their school had received the 'Kids and Roads' materials appropriate to the student year level they taught. This is similar to the 1998 sample where 52% of teachers claimed their school had received the materials. The proportions for both 1999 and 1998 were smaller than the proportion of the 1997 sample that recalled receiving the materials (67%). Of the entire sample, 43% taught at least one activity. This level of implementation is favourable compared with implementation of the Victorian 'Streets Ahead' program in which 33% implemented the materials (Penna, 1994). Thirty-three percent were unsure if their school had received the materials and 9% claimed they had not been received. Making all teachers more aware of the existence of the 'Kids and Roads' materials may be a strategy for increasing implementation of these materials.

Most of the components of the 'Kids and Roads' materials had been taught by teachers who used this resource with the exceptions being the sections on whole-of-school activities and home activities. The materials were thought, by those who had used them, to be developmentally appropriate for their target groups, and provide good links to the Health Education K-10 Syllabus. The 1998 primary teachers also indicated the materials were developmentally appropriate and provided good links to the Health Education K-10 Syllabus. Almost all teachers believed their students had learned new information and skills as a result of the program.

Primary teachers reported using a number of different road safety education resources. The most popular were children's own experiences, the Health Education K-10 Syllabus and existing school resources. In the 1998 sample, the most popular road safety resources were the Health Education K-10 Syllabus, children's own experiences and existing school resources. Of the health education resources available in schools, the 1999 sample indicated that those resources most commonly used in health education programs were the Health Education K-10 Syllabus, Heart Health, Constable Care and then the School Drug Education Teacher Support Package.

Road Wise was also believed to have a positive influence on the teaching of the 'Kids and Roads' materials, however only 20% (n=23) of the sample had been involved with Road Wise. Of those teachers whose school had been involved with Road Wise, 74% (n=17) believed this involvement had a positive influence on the teaching of the materials.

4.2.3 Secondary teachers

Despite being predominantly experienced health education teachers; the majority of the secondary teacher sample had limited experience teaching road safety education. Of the 61 teachers who responded to the survey, 34% (n=21) of the teachers had taught road safety education for less than one year and 34% (n=21) had taught road safety for between one to three years. Only ten percent (n=6) of the sample had received district-based professional development. Current dissemination strategies appear to have had limited success in reaching most classroom teachers. The majority of secondary teachers surveyed for the evaluation of the Pre Driver Awareness Kit in Canberra (Newton Research, 1997) believed they would not have considered teaching from the kit if they had not attended in-service training.

Forty-five percent (n=27) of the teachers claimed their school either had not received these materials, or they were unaware of their existence. In the 1998 sample 41% of the teachers indicated their school either had not received these materials or was unaware of their existence. Thirty-eight percent (n=23) of the total 1999 sample (n=61) had read at least some of the materials. Of the 23 teachers who had read some of the materials, 65% (n= 15) had taught one or more of the activities.

Five of the six teachers who intended to utilise the 'Road Smart' materials later in 1999, indicated that their students had learned new information and road safety skills from the materials. The majority of these respondents (n=4) believed that the materials were adequately linked to the Health Education K-10 Syllabus.

None of the six secondary teachers used the whole of school activities or the resource list components from the 'Road Smart' materials. Only a small number of the sample (n=6) incorporated the home activities (n=2), resource sheets (2) and video (1). In 1998, the only component not used by the sample was the whole of school activities. The teacher's notes were the most commonly used component (n=5) in 1999. Of these six teachers, three indicated that their school had been involved with Road Wise. Two of the three teachers believed that this involvement had a positive influence on the teaching of the 'Road Smart' materials.

Secondary teachers reported using a limited number of road safety education resources. This is similar to the 1998 secondary sample. In 1999, the most commonly used road safety resources were the Health Education K-10 Syllabus, newspaper articles and students' own experiences. In 1998 the most commonly used resources were students' own experiences, the Health Education K-10 Syllabus and existing school resources. The health education resources that the 1999 secondary sample believed were most commonly used were the Health Education K-10 Syllabus, the SDEP Drug Education Teacher Support Package K-12 and Candidly Cannabis.

4.3 Conclusions and Recommendations

Teachers appear likely to teach from the 'Kids and Roads' and 'Road Smart' materials if they are aware of their availability within the school. Teachers who used the WASRSP materials appeared satisfied with the materials and their students' learning outcomes. Greater awareness of the WASRSP materials may therefore, lead to increased implementation.

The two-stage train-the-trainer model for professional development associated with this project appears to have reached only a small proportion of primary and secondary classroom teachers. The number of DBTs has also greatly reduced from 92 DBTs in 1997 to just 13 in 1999. Also, not all of the DBTs have conducted training sessions on the WASRSP materials.

Recommendations resulting from this evaluation report include:

- **Conduct training sessions with teachers at the beginning of the school year**

The number and timing of training sessions currently being conducted with teachers is dependent on the DBTs and their work schedules. However, respondents believed training sessions conducted at the beginning of the school year would increase the uptake of the WASRSP materials by teachers as they may still be able to incorporate the materials into their program for the coming year. If sessions are not conducted until later in the year, teachers may be unable to incorporate the WASRSP materials into their program for that year.

- **Increase dissemination by working with other road safety-related organisations**

This was also one of the recommendations from the 1998 evaluation report. Agencies such as Road Wise and Curtin University who are currently working in schools, provide an opportunity to disseminate information about the WASRSP materials and can assist in encouraging its use. Staff from these agencies would need to be trained and supported by the Project Coordinator and would benefit from the school-based expertise provided by the Project. Road Wise may also be of assistance as part of its dissemination of the Safe Routes to School program.

- **Increase the support of principals for the WASRSP materials**

The support of principals is needed to promote the DBT training sessions and also to encourage teachers to implement the WASRSP materials. Many principals believe their teachers are already busy, so may be less inclined to promote the training sessions. Principals, therefore, need to be encouraged to include road safety education as an integral component of their school's curriculum and to promote the WASRSP materials as a valuable resource. The training sessions need to be promoted to principals so they can support teachers who wish to teach road safety education. Using networks that involve principals such as principals' conferences to present WASRSP information and materials may be useful.

- **Improve teacher access to WASRSP materials**

This was also a recommendation from the 1998 evaluation report. Further efforts are needed to increase teachers' awareness (in addition to health service and administration staff) of the availability of the WASRSP materials in their school. Initiatives such as sending the WASRSP brochure to schools to promote the project may be one possible cost-effective strategy. Other strategies could include identifying a school-based coordinator (ie: someone trained by the project) to locate the materials and advise all staff of their location and availability and if possible conduct a mini training.

Two strategies could be employed to improve teacher access. Firstly, encourage the school-based coordinator to make additional copies of the original materials. Secondly and perhaps more importantly, send sufficient teachers guides to schools so each teacher has his/her own copy. This would considerably enhance the quantity and quality of implementation. A small trial of teacher-based dissemination (40 schools to receive one copy per teacher and compare with the current dissemination effort in schools) will be conducted in 2000 to determine whether this expense is justified.

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6. Appendices

Appendix A Introductory Letter Sent to Principals

Appendix B Primary Teachers' Questionnaire

Appendix C Secondary Teachers' Questionnaire

Appendix D District-Based Trainer Questionnaire

Appendix E First Follow-up Letter Sent to Principals

Appendix F Second Follow-up Letter Sent to Principals

Appendix G

WASRSP Brochure

Appendix H

Teachers Agreeing to Take Part in Future Evaluations

Primary

Neil Hodgkinson
J Chomiak
Stephen Duncan
Rob Lewin
Judy Cobern
Marian Giglia
Vanda Mort
Lily Hartley
Kristin Sattell
Glen Young
Jodie Rose
Celia Weston
Siobhan Runge
Colleen Francis
A Cameron
Gail Barclay
Ahidan Burr
Michael O'Brien
Mike Safe
Kathy Chant

Kerrylee Gray
Julie Rando
Ollie Galante
Janet Barrett
Sue McGinnity
Vicki Price
Kerry Duncan
Pamela Prowse
Kirsty Sandlant
Geraldine Hickey
V Richardson
Peter Fisher
Jeff Scott
Trisha Brandham
Gail Nas
Stacey Scorer
Mary Harvey
Jayne Stuart
Sue White
Mary Beaton

Astrad Johansen
Nina Fiumano
G Kelley
Helena Roy
Carolyn Maxwell
Phil Allen
Mary Chapman
Steve Cox
Robyn Sandler
Monika Leech
Ann Muller
Alan Penstone
Jane Clarke
Anne Nicholson
Allison Archer
Gary Phipps
Terrel Roshev
Tracey Aroozoo
Kym Castling

Secondary

Andrew Moore
Steve Frankly
Gail Elson
S Reynolds
Charlie Chodorowski
Jim Stephens
Deanne Elliott

Donna Dipane
Anne Markovic
Vicki Madaffari
Lyn Morgan-Brown
Craig Thomas
Marg Almond
Melanie Bozich

Maria masella
Joanne Ahern
Jenny Albert
Darren Ballantyne
Jenny Casserly
Sue Jessop

Appendix I

**List of Schools Represented at Teacher
Trainings**

Albany Primary School

Little Grove Primary School

Rocky Gully Primary School

Spencer Park Primary School

Walpole Primary School

St Josephs Primary School

Yarloop Primary School

Picton Primary School

Bambara Primary School

Beaumaris Primary School

Cranbrook Primary School

Mt Lockyer Primary School

Mt Manypeaks Primary School

Spencer Park ESC

Yakamia Primary School

Parkfield Primary School

Australind Primary School

Dawson Park Primary School

Joondalup Primary School

Appendix J

List of Study Schools