



**Delta Dog Safe Evaluation Project Report**

# **Are Children Learning the Key Messages of Delta Dog Safe?**

Prepared for the Dog and Cat Management Board of South Australia  
January 2010

Sue Nichols  
Kirrilly Thompson  
Sarah Blunden



**UniSA**



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Centre for Research in Education

Paediatric Wellbeing Cluster Group

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## Executive Summary

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The impact of the Delta Dog Safe program on children's knowledge of safe behaviour when interacting with dogs was investigated by a team of researchers from the University of South Australia. Children from six schools, representing different community types, were engaged in tests of recall and knowledge integration following researcher observation of Delta Dog Safe sessions.

### **Key Findings**

1. DDS key messages are on the whole clearly and consistently delivered and able to be retained by children 2 weeks after presentation.
2. DDS messages appear in children's safety advice with minimal prompting at 8 – 10 weeks after exposure to the program. However few children have incorporated all the recommended actions into their responses to hypothetical situations.
3. The Delta Dog Safe program effectively addresses some misconceptions children hold about how dogs like to be treated.
4. The program confirms children's established belief about the importance of asking adult permission before touching a dog other than a family pet.
5. The program challenges children's strong instinct to run away from dogs which scare them and provides another option; however further reinforcement would be needed in order for the 'stand still like a tree' response to replace the run away response.
6. Children from schools in which there are high percentages of children from non English speaking (NESB) backgrounds appear to have a lower base line of knowledge about dogs and dog safety.
7. NESB children make significant gains in knowledge on exposure to the DDS program but still are well behind their counterparts on post-test.
8. There is evidence of gender difference in some aspects of children's beliefs about and responses to dogs. The DDS program does not directly address these differences.

## **Recommendations**

1. The Delta Dog Safe program overall is successful and should be retained. The program would benefit from some changes in emphasis to ensure greater clarity in what is communicated and how it is received.
2. Children should not be invited to project their own feelings onto dogs (ie 'You wouldn't want that to happen to you'). This can be confusing for young children; moreover some children (particularly boys) genuinely enjoy rough play, loud noises or close physical contact.
3. An emphasis on what makes dogs *different* from children would address the misconception held by some children that how they like to be treated is the same as how dogs like to be treated and which, the research literature indicates, may contribute to the risk of injury.
4. The term 'sad' should be avoided as a descriptor of dog feelings since children are taught that when they are sad, physical comfort is offered. If a child uses the term 'sad' this should be corrected: 'The dog is not sad. It is frightened and doesn't want anyone to go near.'
5. Naming and describing specific practices disturbing to dogs is preferred to general terms like 'silly' and 'rowdy' when referring to child behaviour. There is no generally agreed definition of these terms and children's values may be different to adults'.
6. A reconsideration of the use of analogies like 'tree' and 'snail' is suggested since these can be interpreted by children in ways that involve protruding body parts. Alternatives like 'goal post', 'column' or 'ball' may be safer.
7. An examination of the use of the term 'fist' when describing how children should initiate a patting interaction with a dog, especially as this term is associated with rough play or fighting.
8. Greater clarity on the circumstances in which a child would be best advised to stand still is needed eg at what distance from a loose dog might it be safe for a child to seek the proximity of an adult caretaker rather than stand still and wait for the dog to approach?
9. Teachers should be strongly encouraged to engage children in practicing protective behaviours in the weeks following the session, particularly aimed at reducing the 'run away' instinct.
10. For schools with higher percentages of NESB students, additional resourcing should be considered eg a follow-up session, the participation of a bilingual community member, information provided in translation.
11. Consideration could be given about how to include parents and caregivers in the program given the benefits indicated in the research literature. A parent information sheet, invitation to view children's role plays at assembly or home based project are all possibilities.

# 1. Introduction

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The Delta Dog Safe program is an educational intervention for primary school children which aims to teach safe behaviours when interacting with dogs. The program is funded by the Dog and Cat Management Board of South Australia. The Board's stated aim for this project was to rigorously evaluate the learning retention of Primary aged children exposed to the Delta Dog Safe Schools Program.

The research tender was carried out during 2009 by researchers from the University of South Australia's Paediatric Wellbeing Cluster Group and School of Education: Dr. Sue Nichols, Dr. Sarah Blunden and Dr. Kirrilly Thompson. In designing this study, the researchers have held consultations with Mr. Ben Luxton of the Dog and Cat Management Board and Ms Clare Phillips of the Delta Dog Safe program and have also been guided by feedback from the University's Human Research Ethics Committee and the Department of Education and Children's Services ethics reviewer. The resulting design responds to the brief and is also an outcome of this consultative process.

This report presents the findings of our research evaluation. First, we provide a brief up-to-date review of research in the area of child-oriented dog safety, followed by an explanation our research design.



## 2. Literature Review

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For this literature review, we have surveyed research reports published over the last 20 years in reputable journals. First, we look at studies reporting the impacts of children's encounters with dogs when these result in injury. Some factors making children in general, and particular groups of children, more susceptible to injury are identified. Second, we look at programs which have been developed to educate children and families about these risks and the evidence of the effectiveness of these programs.

### 2.1 Children & dogs: risks and impacts

Available information about children's exposure to risk from dogs comes mainly from statistical reviews of hospital admissions following dog attack. A remarkably consistent pattern is seen over time, and from different state and national health systems<sup>1</sup>.

Children are at greater risk from injury from interactions with dogs than are adults and this is particularly the case for children aged 0 to 6 years old. Children's injuries tend to be to the head and face, making them more severe than adults. Males are also more highly represented in statistics for dog bites than females, making young boys the highest risk group.<sup>2</sup>

Family pets and known dogs constitute the greatest risk to children on the basis of hospital admissions.<sup>3</sup> Further evidence from an observational study indicates that children generally initiate interactions with pet dogs, rather than the reverse, and further identifies child behaviours that disturb dogs including making loud noises, pulling tails and sitting on them.<sup>4</sup> The American Veterinarian Association also identifies children's tendency to maintain eye contact with dogs as a risk factor.<sup>5</sup> Children's problematic interactions with dogs may be motivated by well-intended affection. In one study, 40% of parents surveyed agreed their child would 'hug or kiss' a pet dog.<sup>6</sup> Much of this reported behaviour is consistent with studies of young children's normal play behaviour with peers (eg running and yelling) and with toys (eg manipulating and

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<sup>1</sup> Feldman, K., Trent, R. & Jay, M.. (2004) "Epidemiology of Hospitalizations Resulting From Dog Bites in California, 1991-1998." *American Journal of Public Health* **94**(11); Greenhulgh, C., Cockington, R. & Raftos, J. (1991) "An epidemiological survey of dog bites presenting to the Emergency Department of a children's hospital." *Journal of Paediatrics and Child Health* **27**(3) 171-174.; Horisberger, U., Stark, K., Rüfenacht, C., Pillonel, C. & Steiger, A. (2004) "The epidemiology of dog bite injuries in Switzerland characteristics of victims, biting dogs and circumstances." *Anthrozoös* **17**(4): 320-339; MacBean, C. E., McD Taylor, D. & Ashby, K. (2007) "Animal and human bite injuries in Victoria, 1998–2004" *The Medical Journal of Australia* **186**(1) 38-40.; Thompson (1997) "The public health impact of dog attacks in a major Australian city" *The Medical Journal of Australia* **Vol. 167**, 129-132.

<sup>2</sup> Chapman, S., Cornwall, J., Righetti, J. & Sung, L. (2000) "Preventing dog bites in children: randomised controlled trial of an educational intervention." *British Medical Journal* **320**: 1512 – 1513.; Feldman op. cit.; Greenhulgh op. cit.; MacBean op. cit.

<sup>3</sup> Feldman op. cit.; Greenhulgh op. cit

<sup>4</sup> Wilson, F., Dwyer, F. & Bennett, P. (2003) "Prevention of dog bites: evaluation of a brief educational intervention program for preschool children." *Journal of Community Psychology* **31**(1): 75-86.

<sup>5</sup> American Veterinary Medical Association (2001) "A community approach to dog bite prevention" *Journal of the American Veterinary Medicine Association* **218**(11): 1732-1749.

<sup>6</sup> Wilson op. cit.

cuddling).<sup>7</sup> This suggests it may be problematic for children to transfer understandings of play from other contexts (peer and toy play) to their interactions with dogs. Widely reported gender differences in children's play, which report boys' play as more boisterous than girls, may help to explain boys' greater representation in dog bite statistics.

Inadequate adult supervision is a contributing factor to children's risky interactions with dogs. One study reports that most bites occurred when there was no active supervision.<sup>8</sup> This was confirmed by a parent survey that found 70% always allowed unsupervised child-dog interactions and 55% did not believe their pet dog would ever bite their child.<sup>9</sup>

Many aspects go unexamined in this research, which generally relies on the standard data collection practices of hospital emergency departments. It is worth noting the AVMA's statement that "Each community has a unique set of dog-bite related problems".<sup>10</sup> This suggests that local factors relating to characteristics such as social class, ethnicity and geographic location might impact on the nature of children's interactions with dogs. The statistical studies do not cast light on these dimensions. For instance, it is known in Australia that rural indigenous communities foster some different kinds of relationship between dogs and families than in mainstream suburban families.<sup>11</sup> Depending on the particular indigenous community, this may involve the use of dogs for hunting, for physical warmth and comfort and, in the case of the dingo, the spiritual significance with which it is associated. In multicultural societies such as Australia, there may well be a range of cultural beliefs and practices impacting on children's interactions with dogs in ways that are seldom reported.

## **2.2 Educational programs and their impacts**

Educational programs aim to reduce the likelihood that children will experience aggression from dogs and, more broadly, promote responsible and enjoyable pet ownership. The most common program types involves a single session (30-60 minutes) conducted in a school classroom by an expert dog handler. Emphasis is generally given to recognising from dogs' demeanour whether it is safe to approach; how to approach a dog when it is safe to do so; and protective behaviours for the child to adopt in the case of potential dog aggression. Examples include Prevent-a-Bite<sup>12</sup>, Delta Dog Safe<sup>13</sup> and Responsible Pet Ownership.<sup>14</sup> Supplementary materials for teachers aim to encourage teacher follow-up after the session.

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<sup>7</sup> Jarvis, P. (2007) "Monsters, magic and Mr. Psycho: a bicultural approach to rough and tumble play in the early years of primary school." *Early Years* **27**(2): 171-188.; MacNaughton, G. (1995) The power of Mum! Gender and power at play. Watson ACT, Australian Early Childhood Association.

<sup>8</sup> Kahn et al 2003 cited in Meints, K. & de Keuster, T. (2009). "Brief report: Don't kiss a sleeping dog: The first assessment of "The Blue Dog" bite prevention program." *Journal of Pediatric Psychology* **34**(10): 1084 - 1090.

<sup>9</sup> Wilson op. cit.

<sup>10</sup> AVMA op. cit.

<sup>11</sup> Bradley, S. & Litchfield, C. A. (2009). "A Review of the Relationship between Indigenous Australians, Dingoes (Canis dingo) and Domestic Dogs (Canis familiaris)." *Anthrozoos* **22**(2): 111-128.

<sup>12</sup> Chapman op. cit.

<sup>13</sup> Wilson op. cit.

<sup>14</sup> Coleman op. cit.

Alternative approaches are targeted directly at parents or children. For instance, in the PAWS program offered in some states of the US, a package is distributed by post; it consists of a colouring-in book, information sheet and the URL of a local hospital dog safety web-page.<sup>15</sup> Digital technologies and the internet have recently begun to be used in the delivery of dog safety education. The American Veterinary Medical Association has produced the “Blue Dog” CD rom with parent guide and has a set of short videos accessible from its web-site.<sup>16</sup>

Evaluation studies were reviewed looking at the research approach, outcome criteria and results (see Appendix A). The Prevent-a-Bite program has been evaluated by videoing children’s interactions with a tethered dog in the school yard.<sup>17</sup> This is a rare example of a study using a real dog which the tightening of ethics approval processes has now removed from the list of possibilities available to researchers. It was found that children exposed to the program were more cautious in their approach to the dog. However, restrictions on the free movement of the dog limited the researchers’ access to the full range of children’s learned protective behaviours. Moreover, the fact that it was tethered may have prompted children to infer that it was an ‘owned’, ‘familiar’ dog as opposed to a stray.

The Responsible Pet Ownership program evaluation provided children with a range of contexts for displaying their ability to recognise dog emotions post intervention.<sup>18</sup> Cartoons, photographs and video footage of dogs were all used and children were also asked to role-play safe behaviours for approaching dogs. It was found that most children could identify dog emotions in the manner taught after 2 weeks but not after 8 weeks. Children’s role-play responses did, however, persist for 4 months. This suggests that behavioural training may hold more promise for longer-term retention of dog safety messages by children than interpretation of emotional signals.

A study of kindergarten children exposed to the Delta Dog Safe program used more context-based depictions of dogs.<sup>19</sup> Children were shown pictures of dogs in different contexts, representing high risk (eg while eating) and low risk (eg on leash) conditions for interaction and were simply asked whether they would or would not approach the dog. There was a general increase in caution persisting to 4 weeks; however, children were less able to distinguish between high and low risk scenarios. Interestingly, children whose parents had received an information sheet made the greatest gains. This suggests the need to consider the broader educational network in which children are located including their parents as educators.

The most recent study evaluated a CD based resource featuring cartoon characters designed to engage children and parents in learning about dog safety outside a classroom context.<sup>20</sup> Unlike the other studies, it began by establishing a baseline of children’s untrained reactions to depicted scenarios. The researchers devised a ‘test yourself’ option using similar scenarios to those depicted in the CD. The child had to decide

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<sup>15</sup> Bernardo et al (2001)

<sup>16</sup> Meints & de Keuster op. cit.

<sup>17</sup> Chapman op. cit.

<sup>18</sup> Coleman op. cit.

<sup>19</sup> Wilson op. cit.

<sup>20</sup> Meints op. cit.

whether the character should interact with the dog or engage in an alternative activity based on judgements of safety. Children found the CD easy to use and their performance improved significantly on exposure to the resource. Additional practice with parents resulted in greater improvements for younger children (3-5). Only short term gains were measured in this study which was undertaken 2 weeks after initial exposure. Families' access to technology is also a limiting factor in the effectiveness of such a program.

### 3. Methodology

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A mixed methods design, incorporating both quantitative and qualitative methods, was chosen for the evaluation. The project was designed to investigate both immediate and longer term impacts of the Delta Dog Safe program by incorporating assessment measures at 2 weeks and at 8 – 10 weeks. Over the longer term, it is not recall alone but the integration of new information into a child’s knowledge base which is necessary for its application in practice and transfer into contexts not identical to those featured in the educational program. An innovative method using imaginary character scenarios, was developed to investigate knowledge integration in the longer term. The design also took into account the importance of both local context (class, school and community factors) and generalisability. Schools were chosen to represent a range of community profiles and the total number of children involved in the pre- and post-test phases(over 120) was adequate for generalisation regarding the impact of the program.

The five phase design incorporated activities in the following sequence:

**Table 1:** Phases of research

Phase	Research activity	Timing relative to DDS session	Data gathered
Phase 1	Quiz to establish prior knowledge	One week prior to DDS session	Quiz results
Phase 2	Observation of presentation	During DDS session	Field notes Artefacts (eg photos of class work)
Phase 3	Quiz to establish recall	Two weeks after session	Quiz results
Phase 4	Interviews using imaginary character scenarios	8 – 10 weeks after session	Transcripts
Phase 5	Parent telephone survey	8 – 10 weeks after session	Survey responses

These methods are described in greater detail later in this section.

Children in the Junior Primary grades were targeted for this evaluation based on their identification as a high risk group in the epidemiological studies identified by the literature (see section 2 above). A cohort of one class from each of six schools (estimated as 20-25 students per class totalling at least 120 children) was judged to adequately balance the demands of the statistical and the qualitative data analysis.

#### 3.1 Ethics

The study was carefully designed to minimise the risk of distress to children and to be developmentally appropriate. The University of South Australia’s Human Research Ethics Committee and the Department of Education and Children’s Services both approved the submitted ethics protocols.

Informed consent was gained from a very high percentage of parents indicating their perception that the project was both valuable and non-threatening. Consent was also sought and gained from class teachers and DDS presenters. Information letters can be viewed at Appendix B.

### 3.2 Site selection

Council district boundaries were used to guide school selection for the reason that dog ownership and infringement statistics are kept by municipal councils. One school from each of five metropolitan and one rural council district were identified based on a list of schools due for a DDS presentation within the study time frame. The limitation of rural sites to a single school was based on the low representation of these schools within the DDS program and the need to keep researcher travel time within reasonable parameters. Owing to the minor representation of rural schools in the project, a rural-urban comparison was not attempted in data analysis.

Participating schools are not identified for ethical reasons. However, they are characterised in the table below:

**Table 2:** Participating schools and their characteristics

School pseudonym	Council district	Enrolment*	School card	NESB	Dog: resident for district
"Foothills Primary"	Mitcham	230	10%	23%	1:7
"Coastal Primary"	Marion	170	17%	10%	1:6
"Multicultural Primary"	Port Adelaide & Enfield	250	60%	40%	1:6
"Eastern Primary"	Burnside	700	14%	50%	1:6
"Outer North Primary"	Salisbury	680	30%	30%	1:5
"Farmland Primary"	#	220	15%	0%	1:4

\* As exact enrolment figures may identify schools, approximate figures have been used. % for School card & NESB are accurate.

# As the council district might identify the school, this has not been included. This school is located approximately 150 kilometres from Adelaide.

### 3.3 Observation of sessions

Delta Dog Safe sessions run for one Junior Primary class in each participating school (6 sessions in total) were observed by a member of the research team. Detailed notes were taken covering the mode of delivery, sequence of activities, language used by the presenter and interactions with children. A different presenter gave each session.

Session notes were analysed to identify similarities and differences between sessions and the coverage of Key Messages as defined by the program. For this analysis, Key Messages were defined in terms of their core concepts and their components (see Appendix C) based on resource materials provided by Delta Dog Safe. For instance, Key Message 7 (*There is a correct way to behave if approached by an unleashed, unknown dog*) has five message components: see if the dog looks frightened, angry or friendly; check the adult you are with; ask the owner's permission; ask the dog's permission; do not pat a dog on its head but

under its chin or on its chest. Each session received a score based on the coverage of messages and message components.

Analysis also attended to the language and examples used by presenters and children. For instance, researchers noted the use of generalised and specific descriptive terms for child and dog behaviours and comparative terms implying either differences or similarities between child and dog feelings and responses.

### ***3.4 Assessing baseline knowledge and Key Message recall***

A short quiz was used both to establish children's baseline knowledge one week prior to the DDS session and assess recall two weeks following the session (see Appendix D). The same quiz questions were administered on each occasion but in a different sequence. The quiz items were based on information emphasised in the Delta Dogsafe materials and were approved, prior to delivery, by the Delta Dogsafe coordinator as representing key messages of the program.

Given the age of the children, the quiz was designed to be administered in a non written form using a show of hands to derive class scores. An 'eyes closed' format was chosen to minimise peer influence. This instrument was fully scripted to clearly communicate at the appropriate developmental level.

Children's responses were analysed statistically by question and by school.

### ***3.5 Knowledge Integration***

The extent to which DDS messages were retained by children over the longer term was assessed by the use of imaginary scenarios in individual interviews, held 8 – 10 weeks after the presentation. A sample of 9 - 10 children from each suburban school (total = 49) participated in this activity. "Farmlands Primary" did not participate in this phase owing to insufficient parent consents having been obtained. A gender balance in each class was aimed at and achieved in three out of five classes; the overall cohort was close to balanced at 25 boys and 24 girls.

The imaginary scenario method has been previously and successfully used by researchers working with children in order to elicit their risk assessment and decision making processes in a non-threatening manner.<sup>21</sup> For this evaluation, a story concerning a 'little alien' was devised to elicit children's response in an interview situation (see Appendices E and F). Embedded into this narrative are five scenarios involving elements of risk, three of which involve dogs. Each scenario stops at the point when 'Gimbo' needs advice as to what to do. This cues the child to access his or her knowledge about strategies for managing risks in order to 'help' the imaginary character.

Interviews were held in a quiet location away from the class and were conducted by a researcher different to the one who had given the quizzes in all but one school. Teachers were requested not to refer to the DDS session or dog safety when informing children of the interviews. The intention was to avoid as much as possible cuing the child to recall the DDS session rather than to draw on learnt knowledge. The two non-dog-related scenarios also off-set the effects of any 'priming'.

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<sup>21</sup> Gladwin, M. (2005). "Children's perceptions of risk in play: some research findings from England." *PlayRights Journal* 26(3): 4-8; Harden, J., Backett-Milburn, K. , Scott, S. & Jackson, S. (2000) "Scary faces, scary places: children's perceptions of risk and safety." *Health Education Journal* 59: 12-22

Children's responses were analysed to identify themes relating to the DDS Key Messages and any other themes relevant to children's relationships with, and understanding of, dogs.

### ***3.6 Eliciting Parent perspectives***

A survey for parents was designed to be administered by telephone at 8 – 10 weeks after the DDS presentation at their child's school (see Appendix G). This sought to ascertain whether children were applying their knowledge of safe behaviour around dogs in out of school situations and also whether DDS key messages were impacting on parents. All parents of participating children were invited to complete the survey. The response rate was not high; two surveys were administered to volunteer parents. The responses afforded some tentative insights into parent perspectives and are therefore described briefly in this report.



## 4. Findings and Discussion

### 4.1 Are the Key Messages being delivered?

It was evident that children enjoyed the sessions and found them engaging. Though each presenter had a different personal style, all were successful in pitching their delivery to a young audience and in gaining children's active participation. A high degree of consistency was found in the structure of sessions. All of them involved the toy 'Delta' dog, pictures of a dog illustrating different emotions and role play of how to safely interact with a dog.

Findings of the analysis of Key Message coverage is given below. Two ticks (√√) indicates the KM was delivered with all its components. One tick (√) indicates the KM was delivered but with one or more components missing. See Appendix C for a summary of KMs and their components.

**Table 3:** Delivery of Key Messages: Delta Dog presentations across all sites

Schools/KMs	1	2	3	4	5	6	7
Foothills	√√	√√	√	√√	√		√√
Coastal	√√	√	√	√	√	√	√
Multicultural	√√	√	√√	√√	√	√	√√
Eastern	√√	√	√	√√	√	√	√
Outer North	√√	√√	√√	√√	√	√	√√
Farmlands	√√	√			√	√	√

NB

All the KMs were covered in four out of six schools. For the remaining two schools, there were unusual circumstances which may help to explain the incomplete coverage. In Foothills Primary the session began late and was shortened owing to an unrelated difficulty occurring at the presenter's previous school. Farmland was experiencing its first ever DDS session.

KM 1 *A dog might not want to interact* received the most consistent coverage. All presenters emphasised this point and explained a number of reasons that might disincline dogs to interacting with children eg being fed, sleeping, feeling sick, being frightened.

KM 4 *A frightened dog can be identified by signs it is displaying* also received strong coverage (except at School F) with most presenters identifying several signs of fear eg cowering, head down, looking away.

KM 2 and 3 both concern angry dogs. Only the presenter for Outer North included all components for both these messages. All the other presenters missed out at least one component.

KM 5 & 6 both concern how to behave if approached by an unleashed, strange dog. While nearly every presenter covered these messages, none managed to include every one of the components recommended in the DDS materials.

These findings indicate that complete coverage of all components of the Key Messages is difficult to achieve in the 30 minute time slot. If this is true, then presenters must necessarily make choices about what is most and least important. If this brief time slot cannot be extended, it may be helpful to guide presenters' choices so that emphasis can be given to clarifying common misconceptions rather than reinforcing already strongly held beliefs.

Across the six sessions observed, there were variations. These were seen in the presenter's language, the use of resources and the participation of the class teacher. Variations in resources included the use of additional props for the Delta dog such as a food bowl and leash. In one case, the presenter also used a second toy dog, of a similar size but in a different pose, with its head turned to one side. This second dog was characterised as shy and more reluctant to interact than Delta. The presenter explained that she wished children to accept that some dogs simply do not want to interact at all.

Evidence of teacher participation in preparing children for the session was seen in Outer North Primary and Farmlands Primary. In both schools, teachers had involved children in labelling parts of a dog, one of the activities recommended in the DDS teacher resource document, and these images were displayed on the classroom wall. In Outer North, the class had also undertaken a survey of pet ownership and had discussed types of dogs and their roles in society.

#### **4.2 What do children know about dog safety prior to DDS?**

A short quiz was used to establish a baseline of children's knowledge of dog safe behaviour. This test was repeated two weeks after the DDS session and the difference in scores is taken as an indication of the immediate impact of the delivery of KMs. Looking at base-line results, it is clear that children do not lack prior knowledge of dogs and that some of their existing beliefs are in line with what DDS aims to teach. However, there is also evidence of misconceptions.

**Table 4:** Children's baseline knowledge of dog safety: Pre-test results

<b>Question</b>	<b>Correct response</b>	<b>Number &amp; % children correct at pre-test (total = 121)</b>
Qu 1 If a dog is with its owner, should you ask if it is OK to touch the dog?	YES	109 = 90%
Qu 2 Are all dogs friendly?	NO	89 = 73.5%
Qu 3 Do dogs like you to look into their eyes?	NO	76 = 63%
Qu 4 If you meet a strange dog, should you stand still?	YES	95 = 78.5%
Qu 5 Do dogs like to be patted on their heads?	NO	39 = 32%
Qu 6 If a dog's ears are laying flat down on its head, is it unhappy?	YES	101 = 83.5%
Qu 7 If a dog shows you its teeth, is it feeling happy?	NO	92 = 76%
Total correct responses		601 = 71%

At pre-test, a high percentage (90%) of children were accurate in answering question 1 *If a dog is with its owner, should you ask if it is OK to touch the dog?* Most (83.5%) also responded correctly to question 6 *If a*

*dog's ears are laying flat down on its head, is it unhappy?* indicating an existing level of awareness of certain signs of dog emotion.

Prior to the DDS session, many children were incorrect when asked to guess dogs' preferences regarding the kinds of close contact they prefer. When responding to question 5 *Do dogs like to be patted on their heads?* two-thirds answered in the affirmative. In response to question 3 *Do dogs like you to look into their eyes?* a third answered incorrectly.

When looking at the performance of particular schools, there was considerable variation (see Appendix H for figures). The lowest ranking for baseline knowledge was achieved by Multicultural Primary and this may relate to the characteristics of the student population with high numbers of children from non English speaking backgrounds. However, next lowest was Foothills where this was not a feature of the student population. Here it may be that comparatively low rates of dog ownership explain children's relatively lower achievement on the baseline test.

### 4.3 Are the Key Messages being recalled?

Two weeks after the session, aggregate scores were higher for each question.

**Table 5:** Overall improvement in performance – all schools aggregated

Question	Correct responses PRE	Correct responses POST	Difference
Qu 1	109 = 90%	103 = 97%	+ 7%
Qu 2	89 = 73.5%	95 = 90%	+ 16.5 %
Qu 3	76 = 63%	96 = 90.5%	+ 27.5%
Qu 4	95 = 78.5%	99 = 93%	+ 14.5%
Qu 5	39 = 32%	81 = 76%	+ 44%
Qu 6	101 = 83.5%	95 = 90%	+ 6.5%
Qu 7	92 = 76%	94 = 89%	+ 13%
<b>Totals</b>	601 = 71%	663 = 89%	<b>+ 18 %</b>

Total students for pre-test = 121, Total students for post-test = 106

Overall, there was an 18% improvement in the children's displayed knowledge of dog safety following the DDS presentation. Improvement was seen for every item but was particularly marked for question 3 (27.5% improvement) and question 5 (44% improvement). This indicates that the DDS program was particularly effective in addressing children's common misconceptions about the kinds of close contact dogs prefer. It may be that children are cued to attend more closely when the information being presented is surprising ie disconfirms an existing belief.

However it should be noted that even at post-test, nearly a quarter of children answered question 5 incorrectly, indicating they still believed that dogs like to be patted on their heads, despite this being

discouraged by DDS presenters. Whether this reflects children's projection of their own preferences onto dogs (children may like being patted on the head), their experiences with family dogs (their dogs may not object to being patted) or widely circulating cultural messages about dogs (eg dogs shown having their heads patted on TV) cannot be ascertained from this study. However, it is clearly a persistent belief.

#### ***4.4 Are the Key Messages being integrated?***

An imaginary character narrative incorporating three dog scenarios and one open question (see Appendix E) was used to assess whether, after a period of 8 – 10 weeks, children not only recalled Key Messages but were able to offer dog safety advice with minimal prompting. A total of 49 interviews (25 boys & 24 girls) were held with children from five of the school sites (Farmland PS did not provide enough signed consent forms for this stage).

##### ***Accompanied dog scenario***

To reflect the Key Messages of the DDS program, a child would be expected to incorporate three elements of an interaction routine in advice to Gimbo: 1) ask the owner 2) 'ask' the dog 3) pat in an appropriate manner (ie not on the head, on the chest).

Nearly all of the children (46) incorporated the first of these elements into their advice ie they told Gimbo to ask the dog's owner before patting the dog. The remaining 3 children stated that Gimbo should not pat the dog at all. Thus no child stated or implied that it is acceptable to pat an accompanied dog without asking the owner.

Fewer children (14) incorporated two elements into their advice and fewer still (11) incorporated all three elements. In three schools, only one child managed this. Outer North Primary was the only school in which the majority of the children incorporated all three elements.

*The owner, ask the owner if he can pat it. Put out hand, fist clenched and if the dog sniffs it, then he can pat it.*<sup>22</sup>

Interviewer: *What should Gimbo do then?*

*Pat it under the chin.*

Of the children who gave all three elements, most (7) were girls. When giving two elements, boys tended to omit step 2.

The strong performance of Outer North children in this task is worth comment. Three aspects may have contributed to the successful knowledge integration shown by the children of this school: the DDS presenter had the highest coverage of Key messages and components; the teacher was particularly active in preparing the children and; the class's survey showed a high rate of dog ownership in children's households.

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<sup>22</sup> In two sites, DDS presenters were quoted as using the term 'fist' explicitly to describe the way in which a child should initiate a 'patting' interaction with a dog.

## **Unaccompanied dog scenario**

To reflect the Key Messages of the DDS program, a child would be expected to recognise from the hints given in the story that this dog is angry (ie the dog is described as having teeth bared and raised fur). Fewer than half (22) of the children described the dog as angry ('mad', 'cross' etc). Slightly more girls (13) than boys (9) offered this description.

*Example: If it shows its teeth it means it's angry and if it will think you are going to have a fight*

DDS teaches children that in this situation, they should: 1) stand still 2) keep their hands to their sides or tucked in 3) keep quiet 4) avoid eye contact 5) wait for the dog to leave before walking away 6) tell an adult. The identification of the dog as angry also might cue children to recall DDS advice regarding the correct response to a dog that is physically aggressive ie curl up on the ground and wait for the dog to leave.

Most of the children (29) stated that Gimbo should stand still. However, fewer children incorporated two of the correct response elements (12) and hardly any (2) offered three correct elements.

Some children (8) interpreted the scenario as requiring the most cautious response and advised Gimbo to curl up like a 'stone' or 'snail'. Two children also gave this advice in response to the safe dog scenario.

Some children chose to role-play these responses in the interview. In a few cases, the child adopted a stance that involved protruding or moving body parts eg 'like a snail' was enacted by one with fingers waving representing antenna. Terms such as 'snail' and 'tree' may be interpreted differently by children from the way they are intended to operate in DDS safety advice.

A number of children (8) stated that Gimbo should run away even though this is explicitly warned against by DDS presenters, since it can prompt the dog to chase. In some cases, the advice incorporated contradictory elements, indicating that the child's first instinct was to run but that the DDS message about safe behaviour has also been retained:

*He should tell the teacher. And then he should run... no he wouldn't run because the dog will chase him.*

Interviewer: *So we should tell him not to run?*

*Yeah and then... I know about dog safety. You can't look at the dog and then the dog will go away and then you can play.*

Foothills Primary stood out as having a minority of children (3) advising Gimbo to stand still and a majority (7) stating he should run or walk away from the dog. It may be relevant that the KM left out of this session was number 6 *There is a correct way to behave if knocked down by an unleashed, unknown dog*. Perhaps, lacking a safe way to respond to a threatening dog left these children feeling as if the only viable option was escape.

## **Awareness of dogs' feelings and habits and associated risks**

Both the introduction and the last item of the instrument invited children to give general advice to Gimbo. DDS teaches children that dogs have feelings and how to recognise these feelings. It teaches that dogs do not always like to interact and should not be approached when they are angry or frightened. Also, children are taught to avoid dogs when they are occupied eg eating, playing with a toy or sleeping.

Just over half the children (15) indicated that it is important to be aware of dogs' feelings, using terms such as 'angry', 'sad' or 'frightened', and that child behaviour can impact on or respond to these feelings. More girls (9) than boys (6) made these kinds of comments and, of the boys, most (5) came from Outer North PS.

*The little gun makes dogs scared like a pretend gun but some children do that and go [shoot shoot noises]. Shouldn't do that.*

About a third of children (10) indicated an awareness that dogs may not like to be disturbed or teased.

*If he is having his own happy time, don't make him try to play, just leave him alone.*

Dogs' instinct to run and chase was and recognised as a risk by more than half the cohort (16).

*He needs to know that if he run away from the dog, the dog will chase you, the dog will think that you're playing with me.*

The same number (16) warned against behaving in a physically aggressive manner towards a dog.

### **Other themes**

In response to the pet scenario, children were free to mention any issues that it would be important for a pet owner to know. Safety-related issues were not uppermost in their responses with their focus more on the care of pets.

Most of the children (29) spoke about physical care eg giving food and water, cleaning up after dogs.

Just over half (15) were concerned with 'being nice' in general or more specifically with showing affection to their pet dogs. In some cases, this involved a high level of physical contact eg:

*When it's tired put it in your hands like a baby and wrap something around it.*

The same number (16) saw dogs as needing entertainment eg to be given toys or played with. More boys (11) than girls (5) expressed this view.

## **4.5 Parent perspectives**

Very few parents responded to the invitation to be surveyed regarding their child's participation in the Delta Dog Safe program. Four agreed to be interviewed but only two were able to be contacted in time for the project's reporting deadline. Both parents selected the highest ranking of importance when asked 'how important do you personally think it is for your child to be taught about dog safety' (ie very important). However, their children's reactions to the program were quite different and this does offer some interesting insights into home factors that may influence how the DDS messages are taken up. Based on survey responses, the following vignettes are offered:

**Parent A** does not own a dog. Two of her children participated in the program. After the program she observed changes in the way her children spoke about dogs and approached dogs they met outside the home. The children spoke about the 'way to pat them' and 'what to do if you're scared'. Overall, her children were more cautious in their interactions with dogs and the parent was also more aware of safe behaviours her children should adopt. She commented that the program 'really encouraged the kids to think about how to approach or not to approach a dog' which was especially helpful as the family's pet was a cat 'and you approach a cat quite differently'.

**Parent B** does own a dog which is an aide dog for her son who has a disability. The DDS presentation seemed to impact on his interactions with dogs other than his own; the parent commented he was 'more relaxed around dogs in general'. However, she had not noticed her son talking about dogs differently eg by mentioning their feelings or how to approach them. her own attitude to dogs was not changed through her child's participation in the program.

While clearly a very limited sample, this does suggest that whether a child has a dog at home may have some impact on how receptive the child and parent is, to the DDS messages. It may be that families without dogs see themselves as lacking expertise and may be more receptive to being taught about dogs. Conversely, this suggests that families with dogs may be less receptive to messages.

## 5. Summary of Key Findings

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1. DDS key messages are on the whole clearly and consistently delivered and able to be retained by children 2 weeks after presentation.
2. DDS messages appear in children's safety advice with minimal prompting at 8 – 10 weeks after exposure to the program; however few children seem to have incorporated all the actions that are taught into their responses to hypothetical situations.
3. The Delta Dog Safe program effectively addresses some misconceptions children hold about how dogs like to be treated.
4. The program confirms children's established belief about the importance of asking adult permission before touching a dog other than a family pet.
5. The program challenges children's strong instinct to run away from dogs which scare them and provides another option; however further reinforcement would be needed in order for the 'stand still like a tree' response to replace the run away response.
6. Children from schools in which there are high percentages of children from non English speaking (NESB) backgrounds appear to have a lower base line of knowledge about dogs and dog safety.
7. NESB children make significant gains in knowledge on exposure to the DDS program but still are well behind their counterparts on post-test.
8. There is evidence of gender difference in some aspects of children's beliefs about and responses to dogs. The DDS program does not directly address these differences.



## 6. Recommendations

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1. The Delta Dog Safe program overall is successful and should be retained. The program would benefit from some changes in emphasis to ensure greater clarity in what is communicated and how it is received.
2. Children should not be invited to project their own feelings onto dogs (ie 'You wouldn't want that to happen to you'). This can be confusing for young children; moreover some children (particularly boys) genuinely enjoy rough play, loud noises or close physical contact.
3. An emphasis on what makes dogs *different* from children would address the misconception held by some children that how they like to be treated is the same as how dogs like to be treated and which, the research literature indicates, may contribute to the risk of injury.
4. The term 'sad' should be avoided as a descriptor of dog feelings since children are taught that when they are sad, physical comfort is offered. If a child uses the term 'sad' this should be corrected: 'The dog is not sad. It is frightened and doesn't want anyone to go near.'
5. Naming and describing specific practices disturbing to dogs is preferred to general terms like 'silly' and 'rowdy' when referring to child behaviour. There is no generally agreed definition of these terms and children's values may be different to adults'.
6. A reconsideration of the use of analogies like 'tree' and 'snail' is suggested since these can be interpreted by children in ways that involve protruding body parts. Alternatives like 'goal post', 'column' or 'ball' may be safer.
7. An examination of the use of the term 'fist' when describing how children should initiate a patting interaction with a dog, especially as this term is associated with rough play or fighting.
8. Greater clarity on the circumstances in which a child would be best advised to stand still is needed eg at what distance from a loose dog might it be safe for a child to seek the proximity of an adult caretaker rather than stand still and wait for the dog to approach?
9. Teachers should be strongly encouraged to engage children in practicing protective behaviours in the weeks following the session, particularly aimed at reducing the 'run away' instinct.
10. For schools with higher percentages of NESB students, additional resourcing should be considered eg a follow-up session, the participation of a bilingual community member, information provided in translation.
11. Consideration could be given about how to include parents and caregivers in the program given the benefits indicated in the research literature. A parent information sheet, invitation to view children's role plays at assembly or home based project are all possibilities.

## Appendix A: Summary of dog safety education evaluation studies

Program & reference	Reference	Target group	Approach	Outcome criteria	Results
Kids Against Rabies	Dandoy & Scanlon 1999	Primary School Children	A dramatic skit was developed by health staff in consultation with children. To further reach, this was produced as a 20 minute video.	None stated	No evaluation published
Prevent-a-Bite	Chapman et al 2000	Primary school children	30 min. lesson led by dog handler covering how to recognise friendly, angry & frightened dogs & how to approach dogs & owners. Resource kit for teachers	Children's approach to a tethered dog during unsupervised play (video'd)	Target children were more cautious when approaching dog.
PAWS	Bernardo et al 2001	All families with children in Allegheny County (worst for hospital admissions)	Mail out package including coloring book, info sheets & url of hospital site.	Packets returned; Hits on website; Admissions.	No returns from 1196 packets; 215 hits in month; Admissions for target children dropped from 'most' to 15.5%.
Delta Dog Safe	Wilson et al 2003	Kindergarten Children	30 min. lesson led by dog handler using a toy dog and covering how to recognise friendly, angry & frightened dogs & how to	Correct judgement re whether to pat dogs depicted in situations of high (eg eating) & low (eg on leash)	There was a general increase in caution persisting to 4 weeks as indicated by 'no' responses. However, children were less able to

			<p>approach dogs &amp; owners.</p> <p>Information provided to parents of some children only.</p>	<p>risk.</p> <p>Immediate and longer term (4 weeks) impacts.</p>	<p>distinguish between high and low risk scenarios.</p> <p>Participation of child with information provision to parent resulted in greatest gains.</p>
Responsible Pet Ownership	Coleman et al 2008	Children aged 5-6 (Prep year)	<p>Materials provided to teachers for use in educating children on pet care; visit from a dog handler with actual dog focusing on safe interaction behaviours.</p>	<p>Correct identification of dog emotions in cartoon, photo &amp; video;</p> <p>Role-play of correct behaviours;</p> <p>Knowledge of respons. ownership</p> <p>Immediate &amp; longer term (2 &amp; 4 months) recall.</p>	<p>Most children could identify dog emotions after 2 weeks but not after 2 or 4 months;</p> <p>Children's role-play responses did persist for 4 months;</p> <p>Knowledge of ownership higher in target chn after 2 weeks but no longer.</p> <p>Hard to tell whether teachers had followed up.</p>
Blue Dog Parent Guide and CD	Meints & de Keuster 2009	Parents and children aged 3 - 6	<p>Involves a cartoon large blue dog interacting with a child in various situations. Users are invited to judge the safety of these situations.</p>	<p>The researchers devised a 'test yourself' option for the CD using different child and dog characters. Child had to select an interact option or an alternative based on judgements of safety. Responses were measured pre- and post use of package.</p>	<p>Children found the CD easy to use. Children's performance improved significantly on exposure to the resource. Additional practice with parents resulted in greater improvements for younger children (3-5). There were no effects for gender or dog ownership. All children maintained or</p>

					improved their performance over 2 weeks post exposure except for 3 year olds without parent support.
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## Appendix B: Information letters

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1. Information for parents regarding children's participation
2. Information for Delta Dog Safe presenters
3. Information for class teachers
4. Information regarding parent telephone survey

## Appendix B1

### *Are children learning the key messages of Delta Dogsafe?*

#### Information for parents regarding children's participation

Dear parent,

Schools across South Australia are involved in a program called Delta Dogsafe. This program is designed to promote children's awareness of safe behaviours around dogs. Some schools have also agreed to be part of a research project run by the University of South Australia titled: ***Are children learning the key messages of Delta Dogsafe?*** Your child's school will be participating in this research project. This letter is to seek your permission for your child's participation.

This project will *not* involve your child in any contact with an actual dog. There are three whole class activities which will, with your consent, involve your child.

1. A **brief quiz** one week before the Delta Dogsafe session
2. A researcher observing the Delta Dogsafe session
3. A brief quiz two weeks after the Delta Dogsafe session

Additionally, we are asking that approximately half the class also participate in an individual activity. Separate consent is sought for this (see attached consent form).

#### Individual activity

A brief interview 8 – 10 weeks after the Delta Dogsafe session. This activity will involve the *child giving advice to an imaginary character* (see attached picture) regarding safe behaviour in a range of everyday situations, for instance, crossing the road. Two scenarios involving encounters with dogs will be included. The nature of the child's advice will help us determine if the lessons of Delta Dogsafe are being retained and applied as part of the child's general awareness of everyday risks. Interviews will be conducted at school by a researcher and will be audio-recorded. Although the scenarios are designed to be entertaining and interesting for children, they will be informed that they can stop the interview simply by saying 'Finish' or 'That's enough'.

#### Assurances

Your child's participation in this study is anonymous and all information provided is confidential. The study is not concerned to report individual cases but look for findings across all the participating children. If you choose to withdraw your consent for your child's participation at any time – even after the interview – you have only to contact the researchers. We will then remove data related to your child from the pool.

A copy of the research report will be presented to each participating school by March 2010. All research data will be stored in digital form in a password protected folder on the University's web-site in an area accessed only by researchers. After 5 years, all files will be deleted. This project has been approved by the University of South Australia's Human Research Ethics Committee. If you have any questions about the ethics approval process or your rights as a participant please contact the Executive Officer Ms Vicki Allen by telephone (8302 3118) or email ([vicki.allen@unisa.edu.au](mailto:vicki.allen@unisa.edu.au)). If you have any questions about the project, contact either myself or Dr. Kirrilly Thompson, Paediatric Wellbeing Cluster Group [kirrilly.thompson@unisa.edu.au](mailto:kirrilly.thompson@unisa.edu.au)

## Appendix B2

### *Are children learning the key messages of Delta Dogsafe?*

#### Information for Delta Dog Safe presenters

Dear presenter,

This letter is to inform you of the research project which is being undertaken to determine whether children recall and apply the key messages of the Delta Dogsafe program. Your participation in this project is requested. This will involve you conducting your presentation for students without any change in your usual approach. With your permission, a researcher will observe the session sitting unobtrusively at the back of the room and taking written notes.

The purpose of documenting your session in this way is for us to take into account any variations in program delivery when we account for the children's responses as indicated by their performance on post-tests of recall and knowledge application. Additionally we will be surveying the class teacher about preparation and follow-up activities to give us a fuller picture of program delivery.

All research data will be stored in digital form in a password protected folder on the University's web-site in an area accessed only by researchers. After 5 years, all files will be deleted.

Please note you are under no obligation to participate in this research project. If you decline this invitation, your role as a presenter will not be affected in any way. You may also withdraw from the project at any time, even after the session. You can act on this wish by contacting a researcher who will then arrange for the deletion of recordings and fieldnotes. Further information about the project can be obtained by contacting either:

Dr. Sue Nichols, School of Education [sue.nichols@unisa.edu.au](mailto:sue.nichols@unisa.edu.au)

Dr. Kirrilly Thompson, Paediatric Wellbeing Cluster Group [kirrilly.thompson@unisa.edu.au](mailto:kirrilly.thompson@unisa.edu.au)

A report of this study will be presented to the Dog and Cat Management Board which is the organisation responsible for funding the Delta Dogsafe program. Copies of this report will also be provided to Delta Dogsafe Coordinator Clare Phillips for distribution to presenters on request.



This project has been approved by the University of South Australia's Human Research Ethics Committee. If you have any questions about the ethics approval process or your rights as a participant please contact the Executive Officer Ms Vicki Allen by telephone (8302 3118) or email ([vicki.allen@unisa.edu.au](mailto:vicki.allen@unisa.edu.au)). Thank you for your participation in this project,

Sue Nichols

Kirrilly Thompson

Sarah Blunden

## Appendix B3

### *Are children learning the key messages of Delta Dogsafe?*

#### Information for class teachers

Dear teacher,

This letter is to inform you of the research project which is being undertaken to determine whether children recall and apply the key messages of the Delta Dogsafe program. This program teaches children safe behaviour around familiar and unfamiliar dogs and is intended to reduce their risk of dog attacks, a serious cause of injury in young children. Your class will be participating in this program in term 3 2009. The University of South Australia has been contracted to provide an independent research evaluation of Delta Dogsafe. In order to conduct a thorough evaluation we will be undertaking a number of activities as follows.

Firstly, we ask permission to visit your class on two occasions, in addition to the Delta Dogsafe session, and on each occasion administer a short quiz to the children as a group. This quiz can be run in either a written or non-written format depending on the capabilities of the children.

During the Delta Dogsafe session, we will be asking the presenter's permission for a researcher to observe the session sitting unobtrusively at the back of the room and taking written notes.

Additionally, we will be asking parental permission to interview approximately half the children in the class on an individual basis using a developmentally appropriate imaginary character narrative task. On that occasion, child participants will be absent from class for about 15-20 minutes each.

Finally, we are asking whether you would be willing to fill out a short survey regarding the Teacher Resource Pack supplied by Delta Dogsafe. This will give us a fuller picture of program delivery and enable us to take into account any variations in program delivery when we account for the children's responses as indicated by their performance on post-tests of recall and knowledge application.

The anticipated schedule of activities is summarised below:

<b>When?</b>	<b>What?</b>	<b>Who?</b>	<b>How long?</b>
One week prior to DDS session	Quiz to establish prior knowledge	Whole class	Approx 15 minutes
During DDS session	Videotape and observe presentation	DDS presenter and class	30 minutes
Two weeks after session	Quiz to establish recall	Whole class	Approx 15 minutes
Two weeks after session	Survey re resources and supplementary activities	Teacher	15 – 20 minutes
8 weeks after session	Imaginary character scenarios	Individual children	15 – 20 minutes
8 weeks after session	Survey re child outcomes outside of school	Parents	Approx 15 minutes

Please note you are under no obligation to participate in this research project. If you decline this invitation, we will simply seek a different class. You may also decline to participate in the teacher survey element even if you are willing to give permission for the class's involvement.

All research data will be stored in digital form in a password protected folder on the University's web-site in an area accessed only by researchers. After 5 years, all files will be deleted. Further information about the project can be obtained by contacting either:

Dr. Sue Nichols, School of Education [sue.nichols@unisa.edu.au](mailto:sue.nichols@unisa.edu.au)

Dr. Kirrilly Thompson, Paediatric Wellbeing Cluster Group [kirrilly.thompson@unisa.edu.au](mailto:kirrilly.thompson@unisa.edu.au)

A report of this study will be presented to the Dog and Cat Management Board which is the organisation responsible for funding the Delta Dogsafe program. A copy of the research report will be presented to each participating school by March 2010. This project has been approved by the University of South Australia's Human Research Ethics Committee. If you have any questions about the ethics approval process or your rights as a participant please contact the Executive Officer Ms Vicki Allen by telephone (8302 3118) or email ([vicki.allen@unisa.edu.au](mailto:vicki.allen@unisa.edu.au)). Thank you for your participation in this project,

Sue Nichols  
Kirrilly Thompson  
Sarah Blunden

## Appendix B4

### *Are children learning the key messages of Delta Dogsafe?*

#### Information regarding parent telephone survey

Dear parent,

Earlier this year your child was involved in a research project titled ***Are children learning the key messages of Delta Dogsafe?*** Delta Dogsafe is an education session designed to promote children's awareness of safe behaviours around dogs. Your child was quizzed before and after the session and, if you consented, participated in a structured interview where (s)he gave advice to an imaginary character.

The last phase of the project involves finding out from parents whether the lessons of Delta Dogsafe are translating into children's beliefs and behaviours away from the classroom. Parents who participate in this phase will be phoned by a researcher one evening in the next fortnight and interviewed over the phone for approximately 15 minutes.

Interview questions will focus on four topics:

- ❖ What your child reported about the Delta Dogsafe session (if anything)
- ❖ What your child has been saying about dogs
- ❖ How your child has been acting around dogs (both familiar and unfamiliar)
- ❖ Your own beliefs about teaching children safe behaviour around dogs

The interview will not be recorded but the researcher will be typing your responses. A copy of these can be posted or emailed to you at your request. All research data will be stored in digital form in a password protected folder on the University's web-site in an area accessed only by researchers. After 5 years, all files will be deleted. A copy of the research report will be presented to each participating school by March 2010."

This project has been approved by the University of South Australia's Human Research Ethics Committee. If you have any questions about the ethics approval process or your rights as a participant please contact the Executive Officer Ms Vicki Allen by telephone (8302 3118) or email ([vicki.allen@unisa.edu.au](mailto:vicki.allen@unisa.edu.au)). For any other inquiries, contact:

Dr. Sue Nichols, School of Education [sue.nichols@unisa.edu.au](mailto:sue.nichols@unisa.edu.au)

**If you are willing to be involved, please fill in the form below** with your phone number and best times to call and post in the self-addressed envelope.

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**I am willing to participate in the telephone survey:**

Name:

Phone number:

Best evening to ring after 5 pm: Tuesday, Wednesday or Thursday

## Appendix C Delta Dog Safe Key Messages and Message Components

Key message	Message components
1. A dog might not want to interact.	It may be feeling sick, angry, sleepy, or frightened It may be occupied eating or playing with a favourite toy
2. Angry and frightened dogs are unfriendly and may bite.	
3. An angry dog can be identified by signs it is displaying.	It will stand up straight, prick its ears, look at you and straighten its tail,  It might growl, lift its lip and bark.
4. A frightened dog can be identified by signs it is displaying.	It may cower, look away, put its head down, raise its hackles.
5. There is a correct way to behave if approached by an unleashed, unknown dog.	a. stand still like a tree, b. be absolutely quiet, c. hug yourself, d. look away from the dog, e. don't squeal or yell f. don't run away, g. wait for the dog to go away h. tell a grown up what happened.
6. There is a correct way to behave if knocked down by an unleashed, unknown dog	a. curl up like a snail, b. be quiet and still, c. put your hands over your head, d. look at the ground or close eyes, e. tell a grown up what happened.
7. There is a correct way to behave if you wish to pat a friendly dog	a. see if the dog looks frightened, angry or friendly; b. check the adult you are with; c. ask the owner's permission; d. ask the dog's permission by: standing quietly next to dog, putting hand out near dog, watching to see if the dog looks friendly, tickle under its chin. e. Do not pat a dog on its head. Dogs don't like it any more than you do.

## Appendix D: Base-line and Recall tests: Presenter's Script

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### Base line test (one week prior to DDS session)

#### Introduction

Hello everyone. Thanks [teacher's name] for letting me have five minutes of the lesson today. My name is [name] and I'm here to ask you some questions about dogs. We're all going to do a quick eyes-closed silent quiz.

What's an eyes-closed silent quiz? It works like this. In a minute I'm going to ask you to all close your eyes and put your hands in your laps. Then I'm going to ask you all a question. Each person think about your answer but don't call it out. If your answer to my question is 'yes', put your hand up. Keep your eyes closed. Remember this is an eyes-closed silent quiz. If your answer is 'no', keep your hand in your lap. If you can't think of an answer, keep your hands in your lap. Don't open your eyes until I have counted all the hands up. Does everyone know what to do? Are there any questions?

#### Practice question

Let's have a practice. Everyone close your eyes and put your hands in your lap. Keep your eyes closed please. Here is the question: Do all dogs have a tail? If you are thinking: Yes all dogs have a tail, put your hands up. OK, some of you have your hands up. Does anyone else want to put their hand up? Wait a second now because I am going to count the hands. Keep your eyes closed a little bit longer. OK now open your eyes.

That was great, well done everybody. Some of you put up your hands because you agreed: Yes, all dogs have a tail. Some of you kept your hands down because you thought: No, not all dogs have a tail – some of them don't. Some of you kept your hands in your lap because you couldn't think of an answer. That is all fine.

[Give children a few minutes if they wish to chat about the question]

Before we get on with the quiz, there's just one more thing I need to tell you. One of the questions is about a 'strange dog'. That means a dog that is not a family pet, a dog you don't know. It doesn't mean a dog that looks really strange because it has blue fur or two tails! That would be silly.

#### Quiz

1. Do you like dogs?
2. Do you have a dog as a pet?
3. Do dogs like to be patted on their heads?
4. Are all dogs friendly?
5. If a dog shows you its teeth, is it feeling happy?
6. If a dog's ears are laying flat down on its head, it is feeling scared?
7. If a strange dog comes up to you, should you run away?
8. Do dogs like you to look into their eyes?
9. When dogs are eating, do they like to be left alone?

### Post-script

Thank you everyone. You are so good at thinking about dogs. Now I bet you would like to find out more about dogs. That's exactly what's going to happen because next week someone is coming to give you lots of great ideas about how to enjoy being around dogs. When that happens, you can think about the questions I asked you today. In the meantime, if you want to talk more about dogs, you can always ask [teachers name] or talk to your parents.

### **Answers to questions 3 - 8**

NB Children will not be informed of the correct answers as this would pre-empt the Delta Dogsafe session and make the evaluation invalid. The answers that reflect DDSD key messages are:

Q3: No

Q4: No

Q5: No

Q6: Yes

Q7: No

Q8: No

Q9: Yes

### **Recall test** (one to two weeks post DDS session)

Hello everyone, remember me? Last time I was here we did an eyes-closed silent quiz about dogs. You all did a great job that time. Today we're going to have another go at the quiz. If anyone was not here that day, don't worry because we're going to have a practice first.

[Repeat instructions as per above]

Practice question on this occasion will be: Do all dogs have fur?

Quiz (same as above but with sequence changed)

1. Do dogs like you to look into their eyes?
2. If you meet a strange dog, should you run away?
3. When dogs are eating, do they like to be left alone?
4. Do dogs like to be patted on their heads?
5. If a dog shows you its teeth, is it feeling happy?
6. Are all dogs friendly?
7. If a dog's ears are laying flat down on its head, is it scared?

## Appendix E: Imaginary scenario interview

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The imaginary scenario interview is conducted with each child on an individual basis. A prop will be used for this activity consisting of a picture of ‘Gimbo’ the alien. Words in bold are to assist the interviewer with appropriate emphasis.

### Introduction script

Hello [child’s name]. I’m [researcher’s name]. Thanks for playing this game with me. I’d like to tell you about Gimbo. Gimbo is a character in a story. It’s a story about a funny little alien. Have you heard of aliens?

Aliens are creatures from another planet. Gimbo comes from the planet Blazon. His/her **space-ship is invisible!** So no-one sees it land. Gimbo is a funny little alien **about the same size as you** but all green. Gimbo can walk around and talk just like you. [He/she’s] just a little alien **without any superpowers.**

In the story Gimbo visits planet Earth – our planet – for the first time. [HE/she] sees a lot of strange things. Well, they are **strange to [him/her]** but they **wouldn’t be strange to you.** Like, you know what this is [pointing to chair]. It is a chair for sitting on. But Gimbo might not even know how to sit on it. [He/she] might want to put it on [his/her] head and use it as an umbrella!

Now here’s where you come in. We don’t want Gimbo to do anything that might be dangerous – that could hurt [him/her]. You can **help Gimbo keep safe** by telling [him/her] **what [he/she] should and shouldn’t do.** In the story, Gimbo has four challenges. In each challenge, Gimbo has to keep safe but [he/she] doesn’t know what to do.

After each challenge, I would like you to **give Gimbo some advice** and I will be recording what you say on this recorder. Is that OK? Would you like to hear what you sound like on the recorder? [If so, record brief talk from child and play back]

### **Gimbo’s first challenge**

Gimbo’s invisible space-ship has come down in a grassy space where there are trees and paths. It’s a sunny day and Gimbo can see people walking around and sitting on the ground. In this place there are some **very interesting looking things**, things you can climb on and go up and down on. One of the things has a **seat that is hanging from ropes.** Do you know what kind of place this is?

[If child does not volunteer] **It’s a playground!** Gimbo watches some children on the swings. [He/she] thinks that **looks like fun to do.** When the children have finished, Gimbo sits on one of the swings and figures out how to make it move. Pretty soon [he/she’s] swinging back and forth and **going higher and higher.** But uhoh! Gimbo **doesn’t know how to get off** the swing. Can you tell Gimbo what to do?

Prompts:

What should Gimbo do then?



Is there anything Gimbo shouldn't do?

### Gimbo's second challenge

Thanks, you are really good at helping Gimbo. Would you like to help Gimbo with another challenge? Now Gimbo is walking through the park along a path when [he/she] **sees in the distance a strange animal covered in fur** – one he has never seen before. It's standing on four legs and has a tail. What do you think it is?

[Wait for child's response] It's a dog. But Gimbo **doesn't know anything at all about dogs**. Is there **anything** Gimbo needs to know?

[Wait for child's response]

You know some interesting things about dogs! Back to Gimbo, Gimbo notices that this dog is **not on its own**. This dog is **walking beside its owner** on a leash. When they come to Gimbo, the owner stops walking and the dog **stands quietly** beside. Gimbo **likes the look of the dog's shiny fur**. [She/he] would **really like to touch** the dog. Can you tell Gimbo what to do?

Prompts:

What should Gimbo do then?

Is there anything Gimbo shouldn't do?

### Gimbo's third challenge

OK would you like to hear about the third challenge? Gimbo's still in the park and [he/she] can **smell something very interesting**. The smell is coming from a strange object. It's made of bricks and has a flat top on. On the flat top is a row of long things and that's what smells so good. Do you know what it is?

[Wait for response]

It's a **barbecue** and someone is cooking sausages on the **hot plate**. Gimbo walks over and can see the sausages still cooking away – sizzle sizzle. They smell so yummy [he/she] **feels like taking one straight off the hot plate**. What should Gimbo do?

Prompts:

What should Gimbo do then?

Is there anything Gimbo shouldn't do?

### Gimbo's final challenge

It's a good thing Gimbo has you to help [him/her]! There's one more challenge. Would you like to help with that one? OK, Gimbo is still in the park when he sees *another* dog. This one is **all on its own**, without any owner. This dog is not walking beside someone. It is **running around** and it runs **right up to Gimbo!** While

Gimbo is thinking about what to do, [he/she] notices that the dog's **fur on its back is sticking up** and the dog is **showing its teeth**. What should Gimbo do?

Prompts:

What should Gimbo do then?

Is there anything Gimbo shouldn't do?

### **Gimbo's pet idea**

Gimbo likes dogs so much he would like to **take one back to planet Blazon** for a pet. Dogs can make good pets can't they? But you still have to be careful with them. Can you think of any things Gimbo should do **so that his pet dog will stay friendly** when he is living with it back on Blazon?

Are there any things Gimbo **shouldn't do** to his pet dog **if he wants to stay safe**?

### **Post script**

Wow Gimbo has had a busy day on Earth. He has had an exciting ride on a swing and now he knows what a sausage is! He has seen dogs for the first time and he really likes them. But after all that, Gimbo really **wants to be back on planet Blazon** with his alien family. He walks back across the grass to his invisible space ship, climbs in and - *zoom* - faster than the speed of light he is on Blazon again. When he gets there he **tells all his alien friends** "Hey everybody guess where I've been and guess who I met? I've been on Earth where **I met [child's name] who helped me so much with great advice** about keeping safe!"

Thank you [child's name].



## Appendix G: Parent survey

Hello, my name is (XXXX) and I'm ringing from the University of South Australia about the research project "Are children learning the lessons of Delta Dogsafe?" Thanks for offering to participate in this project. Is this a good time to ask you some questions?

Thanks. First, just to remind you about the project, Delta Dogsafe is an education session designed to promote children's awareness of safe behaviours around dogs. Your child took part in this session 8-10 weeks ago. This interview of the project involves finding out from parents whether the lessons of Delta Dogsafe are translating into children's beliefs and behaviours away from the classroom.

In a minute I'll be asking you some questions and I will be typing your answers. I just want to remind you that your answers are confidential and you won't be identified by name or in any other way. None of the questions ask about dog attacks, however if your or your child has been involved in a traumatic dog attack incident, then just thinking about this subject may possibly cause you distress. In this case, please let me know now as we will not proceed any further with the interview.

Do you want to ask me any questions? Are we OK to begin?

Right, the first question:

1. Do you remember whether your child mentioned the Delta Dogsafe session at all?

- ❖ Yes, did mention [go to question 2]
- ❖ No, didn't mention [go to question 3]
- ❖ Can't remember

2. What did (s)he say?

- ❖ Not much, just said it had happened
- ❖ Mentioned some of the things the presenter said about dogs
- ❖ Mentioned some of the activities
- ❖ Other (specify)

3. How important do you personally think it is for your child to be taught about dog safety?

Would you say it was.....

- ❖ very important
- ❖ important
- ❖ neither important nor unimportant
- ❖ unimportant
- ❖ very unimportant
- ❖ unsure

4. Do you own one or more dogs at home?

- ❖ Yes [go to question 5]
- ❖ No [go to question 6]

5. Would you describe your dog(s) as:

- ❖ very placid (tolerant)
- ❖ ordinarily easygoing but will react if provoked
- ❖ quite sensitive and easily provoked to snappiness
- ❖ Other (specify)
- ❖ Unsure

6. Does your child have regular contact with a dog eg at a relative's or neighbour's house?

- ❖ Yes
- ❖ No

7. Has your child talked about a family or neighbour's dog's behaviour in the past few weeks?

- ❖ Yes [go to question 8]
- ❖ No [go to question 10]

8. Has (s)he:

- ❖ pointed out the dog's body language eg tail wagging, tail down, ears pricked, ears flat, fur bristling?
- ❖ used words that describe the dog's feelings eg 'happy', 'angry' or 'scared'?
- ❖ talked about what the dog likes and dislikes when being touched or played with eg doesn't like being patted on the head, doesn't like being disturbed when eating?

9. Has this way of talking about dogs just started or changed at all in the last eight weeks?

- ❖ No, it has always been the case that we notice and discuss dogs' feelings and body language
- ❖ Yes, this is a recent development
- ❖ Unsure

10. Do you believe the Delta Dogsafe program has contributed to this change?

- ❖ Yes, I can definitely link it to the Delta Dogsafe session
- ❖ There is another possible reason (eg we read a book or watched a movie about dogs)
- ❖ Hard to say/unsure

11. Have you seen your child encounter any unfamiliar dogs in the last few weeks eg when out for walk?

- ❖ Yes [go to question 11]
- ❖ No [go to question ]

12. Can you recall an occasion when the unfamiliar dog was being walked by its owner?

- ❖ Yes [go to question 12]
- ❖ No [go to question ]

13. On this occasion, did your child:

- ❖ touch the dog without asking the owner [go to question 13]
- ❖ touch the dog after asking the owner [go to question 13]
- ❖ not attempt to touch the dog [go to question ]

14. When your child touched the dog did (s)he (multiple responses possible):

- ❖ hold out a hand so the dog could sniff it
- ❖ pat the dog on the head
- ❖ stroke the dog under its chin
- ❖ hug the dog
- ❖ Other (specify)
- ❖ Unsure

15. Can you recall an occasion in the last few weeks when your child was approached by an unfamiliar dog that was roaming free?

- ❖ Yes [go to question 15]
- ❖ No [go to question 16]

16. On this occasion, what did your child do (unprompted)? (multiple responses possible)

- ❖ run away as soon as the dog came too close?
- ❖ stood still and waited for the dog to go away?
- ❖ avoided looking the dog in the eye?
- ❖ yelled in fright?
- ❖ stayed silent?

17. Would you say overall there has been any change in your child's interactions with dogs in the 8-10 weeks since the Delta Dogsafe program? If so, is your child:

- ❖ more cautious with all dogs including the family dog (yes/no)
- ❖ more cautious with unfamiliar dogs but not with the family dog (yes/no)
- ❖ more aware of how dogs show what they are feeling eg happy, angry, scared (yes/no)
- ❖ Other (specify)
- ❖ Unsure

18. Would you say your own attitude to dogs has been influenced by any of the messages of Delta Dogsafe that your child has brought home?

- ❖ Yes [go to question 18]
- ❖ No [go to question 19]
- ❖ Unsure [go to question 19]

19. In what way?

- ❖ discourage child from approaching unfamiliar dogs
- ❖ tell child to stand still if approached by unrestrained dog
- ❖ discourage child from approaching family dog(s)
  - when eating
  - when sleeping
  - when dog's body language indicates angry or scared
- ❖ other (specify)
- ❖ unsure

Are there any comments you would like to make about the Delta Dogsafe program or more generally about keeping children safe around dogs?

Thank you for your time. Would you like to receive a copy of the research report? If so, please tell me the address that it should be sent to.



## Appendix H: Baseline Results by School

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School	Students in pre-test	Correct answers Qu 1	Correct answers Qu 2	Correct answers Qu 3	Correct answers Qu 4	Correct answers Qu 5	Correct answers Qu 6	Correct answers Qu 7
<b>Foothills</b>	19	15 =78.9%	15 =79%	11 = 58%	10 =52.6%	8 = 42%	18 =94.7%	12 =63 %
<b>Coastal</b>	15	15 =100%	13 =86 %	9 =60%	14 =93.3%	2 = 11%	12 =80%	14 = 93 %
<b>Multicultural</b>	18	13 =72.2%	8 =45.5%	11 = 61%	16 =88.8%	3 = 17%	14 =77.7%	3 = 17%
<b>Eastern</b>	26	25 =96.1%	14 = 54 %	19 = 73%	25 =96.1%	4 =15%	22 =84.6%	22 = 85%
<b>Outer North</b>	24	23 =95.8%	24 =100 %	22 = 92 %	17 =70.8%	14 = 58 %	18 =75%	24 = 100%
<b>Farmlands</b>	19	18 =94.7%	15 =79%	4 = 21%	13 =68.4%	8 = 42%	17 =89.4%	17 =89.5 %
<b>Total</b>	121	109 = 90%	89 = 73.5%	76 = 63%	95 = 78.5%	39 = 32%	101 = 83.5%	92 = 76%