

**A pilot study evaluation of the
Delta Classroom Canines™ program's
impact on reading and social/emotional skills
of selected primary school students at Woree State School,
July 2013 to November 2013**



Canine in class: Woree State School Year 2 students Daniel Munro and Tashina Anau with border collie Charlotte.

Picture: BRENDAN FRANCIS

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Summary

The Delta Society Australia Ltd. (Delta) Classroom Canines™ program provides assistance to children who have difficulty with reading and writing, through a Delta dog and handler working with children (students) in a classroom setting. This research investigated the impact of the Classroom Canines™ program on the reading and social/emotional skills of selected students at Woree State School, Cairns, from July 2013 to November 2013. It utilised both quantitative and qualitative data, including reading scores, attendance records, classroom observations, artefacts (work samples), interviews with teachers and students, and researcher journals.

The study was funded by a grant from Woree State Primary School, Cairns, Queensland, Australia; work was conducted under James Cook University Human Ethics research Committee approval, No H4195.

Project Timeline

The research project began in March 2013 with a meeting between stakeholders: Stephen Bell, Principal, Woree State School; Jo Sibley, Woree State School; Sandra Glaister, Delta Society; Hollee Curran, Delta Society; Associate Professor Reesa Sorin, James Cook University; and Dr Janice Lloyd, James Cook University. Ethics clearance from both James Cook University and Education Queensland was applied for following the meeting and obtained.

The delivery of the Classroom Canines™ program commenced at Woree State School on 13 June 2013 with Sandra Glaister from the Delta Society conducting a 'Dog Safe' session for students selected to participate in the program, and the researchers, Associate Professor Sorin and Dr Lloyd, conducting preliminary interviews with students and teachers involved in the program. Interviews were semi-structured, covering: perceptions of reading skills, student as learner, interactions with others, motivation and impressions of the program.

24 July – 27 November 2013: The Classroom Canines™ program ran weekly at Woree State School. During this time, students were given the opportunity to

read to a dog once each week, and were observed reading in most weeks by a research assistant (Miriam Torzillo or Tamara Brooks). Delta dog owners (volunteers) with their Delta trained dogs attended each week. Sessions were held on Wednesday morning and early afternoon, except a few weeks when the trainer was unavailable and then the sessions were held on a Thursday. Eleven students participated in the program, as did their teachers, the latter who filled in interview forms and provided feedback to the researchers about the program. For the most part, students read to the dogs singly and for 20 minute sessions.

7 August 2013: Dr Lloyd instigated a press release media launch on the Classroom Canines™ program at Woree State School, which was attended by the Delta volunteers and their dogs, the student and teacher participants and a research assistant. The press release resulted in several radio interviews, newspaper and popular press articles (a sample of which are attached), and a TV interview on Today Tonight (interviewees: Dr Lloyd, Jo Sibley, and Hollee Curran). It is expected that the media will contact the researchers in the future for follow up on the program.

4 December 2013: Researchers conducted post-program interviews with students and gave teachers forms to complete about these particular students.

11 December 2013: Associate Professor Sorin attended a presentation day at Woree State School to give students involved certificates of participation, to collect teacher interviews and statistical data, and to speak informally with teachers.

December 2013 – February 2014: Data collected were coded and interpreted and a final report about the project written.

Introduction and Background

Research conducted by New, Wilson and Netting (1986) identified that pets are an integral component of the social support network for many individuals with 95% of those surveyed saying that they talk to their pet, 82% identifying that their pet assists them when they are feeling sad and 65% stating that touching their pet makes them feel better. Furthermore, pet interactions are known to benefit people physiologically, socially, psychologically and cognitively, including lowering blood pressure and pulse rates (Katcher, Friedman, Beck, & Lynch, 1983), increasing self-esteem, enhancing and initiating social interactions (M^cNicholas, Collis, & Morley (as cited in Lane, M^cNicholas, & Collis, 1998).

Possibly the first measured research involving dogs and children was conducted by Boris Levinson in the early 1960s. (Heimlich, 2001). He noted that the inclusion of dogs in his therapy sessions with withdrawn children facilitated discussion and positive therapeutic intervention. Animals are also reported to be significant to the social and cognitive development of children (Martin & Farnum, 2002). The inclusion of dogs in the learning environment has also proven significant for children experiencing challenges with comprehension, literacy, concentration, and in overcoming learning difficulties such as Attention Deficit Hyperactivity Disorder, Conduct Disorder and Autism (Scott, Haseman & Hammett, 2005).

The Delta Society, Australia was established in 1997 to foster and enhance the mental and physical well-being of human beings resulting from contact with and bonding between people and their companion animals. Classroom CaninesTM is one of the programs offered by Delta with an aim of fostering literacy and social development in primary school students as well as enhancing their social and cognitive development. To date there has been little formal research of the Classroom CaninesTM program in Australia. However, Sorin (2012) conducted research on the program implemented at Stuart State School in Townsville and believes that dogs in the classroom can enhance the experiences of students as they grow and develop relevant skills and competencies, as determined by the

curriculum, including literacy (reading and writing), and social and emotional skills, such as:

1. Increased positive sense of self as learner.
2. Increased positive social interaction between students, with teachers and with dogs.
3. Increased motivation and attendance to task as well as attendance at school.

An unpublished BSc (Hons) thesis (Jenkins, 2009) investigated the response of teachers to the Classroom Canines™ program in schools in the Barwon region, Victoria. A number of perceived benefits were found, including improved community links, positive effects on reading practice, academic improvements, increased social emotional wellbeing, positive effects on children with autism and an increased engagement in reading.

An informal project was also undertaken on behalf of Delta by a volunteer (Fisher, 2009) to investigate the effectiveness of the BaRK (Building Reading Confidence for Kids) program¹ in conjunction with Classroom Canines™ for one 'disengaged' reader. Fisher (2009) found that the participant, who read aloud one-on-one with a trained therapy dog and handler for 8 weekly, 15 minute sessions, had dramatic gains in reading ability in both accuracy and comprehension. A personal communication between Dr Lloyd and Barbara Fisher, 5 September 2013, revealed that the case study participant maintained his higher reading scores on 12 month follow-up.

Literature Review

Dating back to ancient times, cultures across the world have incorporated and appreciated the unique presence of animals in day-to-day lives (Zhu et al., 2004). For centuries animals have aided in tasks such as hunting and transportation, and additionally have been noted for providing companionship for early European settlers before the 1500s (Hirschman, 1994). Animals were often featured in mythology (Mallon, 1992) and continue to be accepted in cultures and societies

1 The BaRK program was created by the Lake Macquarie City Library, NSW, based on R.E.A.D.

in a variety of ways, providing a common theme in films, entertainment (Burt, 2001), and advertising campaigns (Rock and Lail, 2009). Animals, and dogs in particular, are incorporated into society in human-benefiting areas such as animal-assisted therapy, teaching, work, and research. Dogs aid humans in many ways: they may undergo training to serve as companion dogs (Duffy & Serpell, 2008), police and service dogs (Dorriety, 2005), cancer-sniffing dogs (Cornu, Cancel-Tassin, Ondet, Giradet & Cussenot, 2011), search and rescue dogs (Jones, Dashfield, Downend & Otto, 2004), and therapy dogs (Friesen, 2010a).

Many agree that owning a companion animal can enhance one's quality of life (Heimlich, 2001). People often embrace animals as part of their family (Hirschman, 1994) to the point that large groups defend their well-being, such as the Royal Society for the Prevention of Cruelty of Animals (RSPCA) (Burt, 2001). Yet while many animals are protected under such organizations and laws, documents show that historically, human affection for animals has been stronger for certain species (Stokes, 2007), particularly 'man's best friend,' the dog (Wade, 2002). Recent study of the why humans might be so attracted to some animals has focused on the following three areas: anthropomorphism, neoteny, and biophilia.

Anthropomorphism is the application of human-like mental states to non-human animals in order to better understand feelings and thoughts (Rock & Lail, 2009). Anthropomorphism gives human characteristics to non-human entities, sometimes to inanimate objects, but more often to animals (Hirschman, 1994). In addition, Hirschman (1994) suggests that dogs and humans share similar facial expressions to convey emotions, which further explains why humans might feel such a close connection.

No other species has the range of morphological and behavioural changes seen in the dog. Around 400 breeds of dog exist today, decreasing in size from the Mastiff to the Chihuahua. Although canine development is very plastic, puppies of every breed look exceptionally alike, with large foreheads and paws. These

'cute' traits are also characteristic of wolf puppies. Unlike the wolf, domestic dogs retain morphological and juvenile behavioural traits into adulthood. This is called neoteny (Lloyd, 2004). Neoteny, therefore describes peoples' fascination with some animals, noting that humans are attracted to an animal's juvenile-like appearance (Stokes, 2007). The similarity of an animal to a human baby or toddler triggers the desire for humans to care for and nurture the animal. Neoteny is also expressed behaviourally, such as whining, begging, greeting by way of licking and submissiveness (Lloyd, 2004).

A similarity that dogs share only with humans is an unusually large genetic diversity and a worldwide gene pool (Morell, 1997), supporting the theory that humans took dogs with them wherever they went. This ancient bond is seen today in the many ways that dogs interact with humans in the roles of companion, show animal, working dog, and providing assistance to people with sensory and other physical disabilities (Lloyd, 2004).

The hypothesis of biophilia was first proposed by Harvard zoology professor, Edward O. Wilson, who suggested that the human brain has evolved to pay specific attention to animals, originating with early hunters and gatherers (Beck & Katcher, 2003; Becker & Morton, 2002). Biophilia is the common thread between all humans, supporting psychological integration where humans are innately drawn to life other than human (Mitchell & Mueller, 2011). Yet although biophilia is part of human nature, it is especially crucial for the mental development of young children (Becker & Morton, 2002). Human minds are introduced to animals from a very early age, where a child's first words are often "dog" or "cat," accompanied with the related animal or stuffed animal toy. Research has discovered that 99% of children aged 3 to 13 claimed they wanted a pet and that over half of children aged 3 to 6 claimed their dreams involved animals. Researcher and veterinarian, Dr. Marty Becker sums up such observations by explaining that 'animals dominate a child's thinking' (Becker & Morton, 2002). Overall, animals have a major impact on how children view the world and themselves (Meadan & Jegatheesan, 2010; Mitchell & Mueller, 2011; Siegal,

2004), with research revealing improvements in emotional, physiological, social, and physical wellbeing of children (Friesen, 2010a; Mallon, 1992).

Despite a growing body of research, it is only fairly recently that psychological, physiological, social, and educational benefits have been confirmed as a result of human-animal interactions (Walsh, 2009). Because dogs can be seen as accepting (Friesen, 2010a; Goleman, 1990), trustworthy, non-judgmental ‘friends’ (Meadan & Jegatheesan, 2010; Siegal, 2004) that increase relaxation (Friesen, 2010a; Jalongo, 2005; Siegal, 2004), alertness, and one’s attention span (Heimlich, 2001), the presence of a dog can be very effective in a therapy setting or learning environment. The following sections further explore the benefits of involving dogs in therapy and learning environments, focusing on how dogs can be used to effectively promote literacy in young children.

Animals in Therapy

The first known documentation of animals used for therapeutic purposes dates back to the late 1700s where the Quakers used “creatures weaker than themselves” to help guide the mentally ill. In 1867, historical records indicate another therapeutic use of animals, where they assisted epileptic patients in Bethel, Germany (Mallon, 1992). One century later, psychologist Boris Levinson took the principle of animal therapy to a new level after documenting the benefits of incorporating his dog into therapy sessions with children (Friesen, 2010a; Mallon, 1994). Since his contribution to this field in the late 1960s, the Delta Society, an organisation recognised for its use of therapy animals, has classified programs involving the aid of an animal as either ‘Animal Assisted Therapy’ (AAT) or ‘Animal Assisted Activities’ (AAA). Delta defines AAT as involving an animal that is under the supervision of a therapist or other human service professional, aimed to accomplish a specific goal (Geist, 2011; Schaffer, 2008). AAT is specific, structured, goal oriented therapy, individually designed for each client/recipient. It forms part of a therapy program wherein progress is measured. Inherent within AAT, therapy can only be carried out by the designated person (Kruger & Serpell, 2006). Therapy animals come in all shapes and sizes, including domestic animals such as dogs and cats; farm animals such as cows,

sheep, horses and pigs (Mallon, 1992; Mallon, 1994); small rodents, including gerbils, hamsters and mice; and other miscellaneous animals like turtles, fish, and iguanas (Geist, 2011).

AAA, on the other hand, differs from AAT in that it aims to improve the quality of life for a person without having a direct objective (Friesen, 2010a). AAA are casual sessions where the animal is handled by any professional or untrained volunteer, simply to “meet and greet” (Schaffer, 2008). AAA does not involve structured interactions, but rather the intervention can be carried out by any person. It is not goal-oriented, nor geared toward any specified individual treatment plan. In addition, the participants are not required to maintain records or contribute to the individual’s health care plan (Kruger & Serpell, 2006). The program, therefore, is not designated or designed for specific clients.

Dogs in Childhood Education

Although AAT is commonly used to achieve therapeutic goals in the presence of a therapist, it can also be used to achieve set objectives in an educational realm (Friesen, 2010a; Mallon, 1994). Purdue University Professor of Childhood Development, Gail Melson, observed that infants are drawn to animals chiefly because animals are loaded with information (Becker & Morton, 2002). Using dogs in the classroom also builds a child’s self-esteem, a critical aspect of one’s overall development (Meadan and Jegatheesan, 2010). Dogs help young students’ emotional stability in the classroom by providing a friend the whom the child can form a bond (Friesen, 2010a). Children have an easy time trusting a non-judgmental animal (Siegal, 2004).

Classroom animals have also been documented to aid in the development of a child’s social skills, where an interaction with an animal increases a child’s awareness of others’ feelings (Goleman, 1990; Jalongo, 2005; Meadan and Jegatheesan, 2010). Social skills are especially critical as a child develops, where studies correlate high social capabilities with the overall success of an individual (Siegal, 2004). Dogs can help build community ethos and enable teamwork within the class, because students work together to look after the

animal and learn to take turns in their one-on-one encounters (Friesen, 2010b; Meadan & Jegatheesan, 2010). As the whole classroom shares the experience of their new canine friend, students also have more in common and therefore have an experience to talk about (Meadan & Jegatheesan, 2010).

Animals additionally promote self-control in students where a child must be appropriately behaved in order to spend time with the animal (Flom, 2005). This behaviour is highly enforced in the presence of an animal and carries over to other areas of the classroom (Siegal, 2004). Animals have been known to help with a diverse range of behavioural disorders, including cases of Conduct Disorder (CD) and Attention Deficit Hyperactivity Disorder (ADHD) (Geist, 2011). Classroom dogs encourage students to be more attentive, cooperative, and alert (Friesen, 2010a), which enhances their classroom performance.

Finally, dogs promote learning through their physical presence in the classroom. Animals enrich a learning environment and encourage a lighter mentality, which in turn opens new doors for learning in various subjects (Shadforth, 2008; Willis, 2009), including reading, writing, mathematics, social studies and economics (Siegal, 2004). Dogs provide a good learning environment through the relaxation they bring to a classroom. Because animals bring a sense of acceptance (Friesen, 2010a) and understanding, students are more likely to overcome individual learning challenges. In addition, dogs can lower blood pressure in children (Friesen, 2010a; Siegal, 2004) and reduce stress and anxiety, which enables students to feel more comfortable interacting with both peers and adults (Friesen, 2010a; Jalongo, 2005). Animals enable learning to involve multiple senses, thus stimulating more areas of the brain and increasing one's learning potential (Willis, 2009). Dogs also promote social interaction in children. When students interact with a classroom dog, they are frequently in direct contact with the animal, sharing hugs and pats. This direct touch produces endorphins, relaxing the child and encouraging a better social outcome (Levinson, 1984). Studies have also found that events incorporating a variety of senses, especially smell, allowed students to recall events more easily (Shadforth, 2008). Such

increase in a student's memory and attention span will therefore enhance the early literacy skills of a child (Davidse, Jong, Bus, Huijbregts & Swab, 2011).

Dogs and Literacy

Dog literacy programs are becoming increasingly popular in many countries. Hall (2009) noted that the combination of pets and children was a powerful tool when it comes to literacy. A student's ability to learn a language is divided into oral and written, where the influence of oral language dramatically increases a student's ability of 'learning to learn' (Hill & Launder, 2010) and therefore, vital for literacy skills. First made popular by Intermountain Therapy Animals in the USA, the READ program provides an accredited dog to whom students read to practice their reading. The READ program recommends each student spend 20 minutes reading aloud to a dog each week, accumulating roughly 14 hours of supervised reading practice per year (Jalongo, 2005).

Dog literacy programs are not restricted to reading, but can also involve writing and other areas of curriculum. Additionally, dog literacy programs can be held outside the classroom. For example, dog literacy programs are becoming popular in public libraries. In these programs, similar to the programs conducted in classrooms, students can sign up to read to a dog in 15-minute sessions, ultimately raising a child's self-confidence and increasing their school attendance (Truett & Becnel, 2011). Animal-assisted reading programs in schools and libraries have been conducted in 43 US states, four provinces in Canada, in addition to other countries including India, Hong Kong, China, Australia, and the United Kingdom (Friesen, 2010b).

The main component of such literacy programs is that the dog provides a nonjudgmental audience for the student (Friesen, 2010b), where students perceive their canine companion to be a "good listener" that can "understand" them (Mallon, 1994). 'Literacy dogs' prevent students from feeling "lonely" when they share in a reading session, and simultaneously, enable them to develop reading skills at their own pace (Hall, 2009). Students have lower blood pressure when they read aloud to a dog (Friesen, 2010a), where the calm nature of the

dog benefits their ability to learn (Friesen, 2010b). Overall, it is becoming increasingly recognised that dogs provide a positive reading environment for students (Townsend, 2003).

Finally, in addition to literacy, Siegal (2004) found that READ dogs also encourage writing. For example, a student in the READ program became so motivated to share her/his experience with a literacy dog, that he/she eventually wrote an 8-page paper relaying the event, despite never having written a paper before. Another student also gained such confidence in her reading abilities that her literacy score doubled within 15 months of the dog-literacy program (Siegal, 2004). Occasionally, students chose to write stories to the dog that were not required by the teacher (Friesen, 2010b), further showing children's enthusiasm of the sessions.

Gaps and purpose of current study

Although AAT is a relatively new field of study, programs involving animals and education are gaining popularity worldwide; highlighting the urgent need for research to reveal the impacts of such programs (Friesen, 2010b; Friesen, 2010a). Recent research in Australia included a project conducted by Turner (2011) that evaluated the use of dogs as 'mediating artifacts' within the adult learning environment, ultimately concluding dogs can be a beneficial bridge between adults and education. As mentioned in the introduction/background section of this report, Jenkins (2009) investigated the therapeutic and educational benefits of the Classroom Canines™ program for school students, focusing on principals' perceptions of the program. It is noted that the program described in this unpublished research included dog handlers as well as dogs in interactions with students. Focusing on student and teacher interviews and student work, Sorin (2012) found that the program enhanced students' literacy, motivation and interaction with others.

The current study at Woree State School focused on the impact of the program on students' reading, sense of self as learners and their social interactions/relationships with other students, teachers and dogs. It attempted to distance dog

handlers from interacting with students during their time with the dog. It was hoped that by removing adult input and focusing on the child-dog interaction, the researchers would be better able to determine the impact of the dog as a mediating artifact on students' reading, sense of self as learners and interactions with others. Data in this study were collected from reading scores, attendance records, classroom observations, artefacts (work samples, such as unsolicited drawings and stories that some of the children made for the dogs), interviews with teachers and students, and researcher journals.

Methodology

Aims of the Study

This research aimed to investigate the impact of the Classroom Canines™ program on the reading and social/emotional skills of selected students at Woree State School. The main question behind this research was, "How has the Classroom Canines™ program impacted on students' reading and social/emotional skills?" This research was conducted as a single site Case Study, using both qualitative and quantitative methods. Yin (2009, p. 18), proposes that a case study is an inquiry that:

1. Investigates a contemporary phenomenon in depth and within its real-life context, especially when
2. The boundaries between phenomenon and context are not clearly evident
3. Copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
4. Relies on multiple sources of evidence, with data needing to converge in a triangulation fashion, and as another result
5. Benefits from the prior development of theoretical propositions to guide data collection and analysis

Woree State School study fit well into the parameters of the case study, as outlined above. The phenomenon under investigation was the Classroom Canines™ program, which involved trained dogs attending the school once a

week and students in the program reading aloud to the dogs. The aim was to provide an in-depth account of the program's impact on students' reading and social/emotional skills. In this program, there are many variables of interest, including students' reading scores; their evaluation of themselves as learners; and their relationships with peers, teachers and dogs; teachers' comments; attendance records and test scores. Analysis of these variables provided rich insight and supported triangulation of the data. Data were collected using a variety of established methods, such as interviews, observation. Analysis was undertaken using a Grounded Theory approach of emerging coding and test score analysis.

Yin (2009) states that case studies have a minimum of four different applications. These include explaining presumed causal links that are too complex for a survey or experiment; to describe an intervention within its context; to illustrate certain topics within an evaluation, and to enlighten in situations where the intervention does not have a single set of outcomes. In the Woree State School research, the case study aims to explain the impact of the Classroom Canines™ program, and in so doing to describe the implementation of the program within the school context. Further, it strives to highlight and illustrate specific topics within the evaluation, such as changes to attendance; improvement in reading scores; and motivation to attend school. Overall, it aims to enlighten the reader regarding the various outcomes, both qualitative and quantitative, of the program. To begin the process, we will describe the setting (context), participants, activities, role of researchers and methods for data collection and analysis.

Setting

The Classroom Canines™ program was piloted at Woree State School in Semester 2, 2013. It was organised through a collaboration between Woree State School, James Cook University, and the Delta Society. James Cook University was recruited to conduct an evaluation of the program via contract research by Associate Professor Reesa Sorin, School of Education, and Dr Janice Lloyd, School of Veterinary and Biomedical Sciences.

Woree State School is located in a lower socio-economic area of Cairns, Queensland. The Australian Early Development Index (AEDI), a measure of students' school readiness completed by Preparatory teachers, assesses students' competence in five areas: Physical health and wellbeing; Social competence; Emotional maturity; Language and cognitive skills; and Communication skills and general knowledge. AEDI results for 2012 for the Woree community indicated that 32.1% of students are vulnerable in one or more domains and 23.2% are vulnerable in two or more domains. Twenty three percent of students were assessed as vulnerable in Communication skills and general knowledge; 21% in Social competence; and nearly 20% in Physical health and wellbeing. These are among the most concerning scores in the Cairns community.

As the Woree State School project was a pilot project, it was decided to focus on students identified with special needs for support. The Classroom Canines™ program involved a dog handler with their Delta Society certified dog attending the school once a week. Students for the most part came one at a time, for approximately 20 minutes, to read to the dog. At the end of the session, students had the opportunity to feed the dog a treat. A research assistant attended most sessions, along with the handler. At times, students were given a prompt by the handler, but mainly they read to the dog uninterrupted for the duration of their session.

Participants

A group of 11 students, 8 boys and 3 girls, who attended either a learning support program, an academic support program, or were considered 'disengaged' within the school were chosen by the school for this pilot project. They ranged in age from 5 to 11 years. Six of the 11 attended the School's Academic Success Program, as they had been identified as falling below or at risk of falling below the benchmarks for their year levels. These students attended the Academic Success program program for 45 minutes, four times a week, for 10 or 20 weeks. Four students were in the Learning Support Program, which they attended for as

long as necessary. Two students were identified as 'disengaged', particularly with reading.

In total, there were three dogs and their handlers involved with this research. The plan was to have two dogs, but two-thirds of the way through the program one of the handlers left, so another volunteer and her dog were recruited. The delta handler-dog teams were:

1. Georgina and 'Teddy', a 6 year-old male (desexed) Bichon Frise
2. Leisa and 'Charlotte', a 5 year-old female (desexed) Border Collie
3. Caroline and 'Astro', a 3 year-old male (desexed) Whippet cross.

Role of Researchers

The researchers took on the role of non-participant observers. They conducted interviews at the beginning and end of the program, with students and teachers, and spoke informally to teachers about the program. Further, a research assistant attended most weeks of the program and made observations about the program.

Data Collection and Analysis

This research utilised a number of data collection tools, both qualitative and quantitative. They were: Pre and Post-program interviews with students and their teachers; observations by the researchers; Attendance data; and Reading Scores. Each is described below:

Pre and Post Program interviews:

The students were interviewed using semi-structured interviews before the program began and after the program ended. Interview questions for the Pre-program interview were:

1. Tell me about yourself
2. Do you like coming to school?
3. What are you like as a learner?
4. Do you like reading?
5. What are you like as a reader?

6. How do you get along with other children/students? Teachers?
7. Do you have pets at home?
8. Do you like dogs?
9. Tell us how you get along with dogs or other pets
10. We are planning to bring a dog into your class once a week so that you can practice your reading with the dog. How do you feel about this?

Teachers of each participating student were asked to complete a pre-program interview sheet that focused mainly on the individual student. Questions were:

1. Tell me about (name of student)
2. What is s/he like as a learner? Is s/he motivated to learn?
3. What is s/he like as a reader?
4. How well does s/he interact with other students? With you? With animals?
5. Do you like dogs? Do you have dogs or other pets at home?
6. How do you think the Classroom Canines™ program will impact on his/her learning?

Post-Program interviews for students included the following questions:

1. What did you do in the Classroom Canines™ program?
2. How has the Classroom Canines™ program changed you as a learner?
3. How has the Classroom Canines™ program changed you as a reader?
4. How has the Classroom Canines™ program changed how you get along with other students? Teachers? Dogs?
5. How has the Classroom Canines™ program changed how you feel about coming to school?
6. How do you feel about the Classroom Canines™ program?
7. What did you like best? Least?
8. What would you like to do with the dogs if they come again next year?

Post-program interviews for teachers were:

1. How did (name of child) participate in the Classroom Canines™ program?
2. How have her/his feelings about her/himself as a learner changed since participating in Classroom Canines™ ?
3. How have his/her attendance patterns/ behaviour/ attitudes changed since participating in Classroom Canines™ ?
4. How has her/his motivation to come to school and learn changed since participating in Classroom Canines™ ?
5. How has s/he changed as a reader since participating in Classroom Canines™ ?
6. How have his/her interactions with peers/teachers/dogs changed since participating in Classroom Canines™ ?
7. How do you feel about the Classroom Canines™ program?
8. What did you like best? Least?
9. What would you like to see in future programs?

Observations:

Researchers attended for the majority of weeks the program ran, but while they greeted students, they stayed at a distance and did not interact with them or with the dogs and handlers. The researchers took notes each session. An example is:

Trainer shows him how to feed [the dog]. Looks to volunteer for help with a difficult word. Places book on carpet while reading (nervous hand gestures), cupping his arm. [Dog] rolls around and distracts him from reading. Seems to feel quite safe with the dog – asking questions, calling and patting him...Often pauses in reading to take note of where [dog] is. Offers up his own general knowledge of parrots (in response to the book). Stutters in speech somewhat. Acknowledges the dog when he finishes reading the book, and pats him adoringly. (Is this the reward for reading?)

Videos of reading sessions. Videos were made of the interviews at several stages throughout the project, and may be reviewed by the researchers in the future to further assess the program and to help with further data analysis.

Findings

Findings of the study are presented in the following categories: Attendance, Learning, Reading, Social, Attitude to Animals, and Attitude to Classroom Canines™ program.

Quantitative data: Attendance records and reading scores:

Attendance

Overall attendance throughout the school term improved during the Classroom Canines™ program. One student's attendance decreased (although none of the unexplained absences were Classroom Canines™ days), and two student's (poor) attendance remained the same. The majority of students never missed a Classroom Canines™ day or only missed a day due to ill-health. However, it is worth noting that one student missed three days at the time when the new dog was introduced after the first volunteer left the program, perhaps indicating that the student was not comfortable with the change in the routine/handler/dog.

Learning

Most of the students interviewed (9 of 10) reported improvements to themselves as learners. This included improved confidence, attitude and cooperation (3); looking forward to the Classroom Canines™ day (3); not struggling and improved learning (2); and learning to read to a dog (1). For example, one child said that by the end of the program she had improved as a learner, liked school better, and was performing and listening better. From the nine teacher interviews submitted, there was an overall view that students had improved as learners: three students were described as having more motivation; two of being more confident, and one each of persevering more and having a better attitude (the latter two could also be classified as 'motivation').

Reading:

Overall there was an improvement to students' reading. Of the 11 students in the program:

1. 5 of the 11 made substantial progress with their reading.
2. 2 of the 11 made slight progress with their reading.
3. 3 of the 11 stayed the same in their reading (with one student referred for further testing). At least one of these students was identified as having other issues that may have negatively affected their reading.
4. 1 of the 11 went down in reading. Again, this student experienced other issues, as described above.

Table 1 (below) shows the changes to reading scores as provided by the School's PM/IPI data. PM refers to the PM reading program benchmarks, which is a program used in the younger grades. IPI refers to Informal Prose Inventory, a reading program for the older grades. Depending on students' grade level, they were given either a PM or an IPI score:

Table 1

Pre-Program PM/IPI	Post-Program PM/IPI	Change
13	17	Up substantially
8	18	
8	12	
7	13	
2	5	
5	6	Up slightly
9	11	
20	20	Same
1	1	
(Note: to be retested)		
2	2	
11	10	Down

Additional reading analyses:

The data set was incomplete and only a preliminary analysis could be performed. However from other quantitative data (Reading Level - Literacy) provided by the school, it appears that participants' reading levels improved slightly during the Classroom Canines™ program in 2013, compared to the previous year before the Classroom Canines™ program was running (i.e. up 2 points in 2013 vs. 1.5 in 2012). Perhaps, more striking is that students who participated in the Classroom Canines™ program performed on a par with their peers who were not identified as having learning difficulties in 2013 (i.e. an increase of 2 points compared to an increase of 1.9 for the rest of the students in Year Levels 1 & 2).

Social

The greatest improvements in Social skills reported by the students and the teachers were with peers. Five students reported improvement in peer relations and teachers reported that four students improved in their peer relations. One student said that since the Classroom Canines™ program began, "Kids are nicer to me and me to them. They don't pick on me now."

Six students said that their relationships with teachers had improved. One student reported, "Yes, I was mucking up in class...I didn't [really] know the teacher but now I do and I don't muck up." However, only one teacher reported an improvement in relationships with their students, and most said they had always had a good relationship with the student.

Attitude to Animals

All students said that they liked animals, particularly dogs, at the onset of the study. However, four reported that their interactions with dogs had actually improved by the end of the program:

I've been getting along [with dogs], getting better and better.

I get on better now [with dogs].

Better. I say hello in the park. Once I had a dog but we had to sell it.

Yes [I get along better with dogs]. *Other dogs as well as Charlotte. I have a dog at home. I get along with it better.*

Students also made comments about the Delta dogs:

I talk to Charlotte every time. Charlotte is so nice - like when she laid her head on my hand. I took her for a walk.

Charlotte is cute. When we read we tickle her.

There was a cute dog – Teddy. I like Teddy.

Attitude to Classroom Canines™ program

Overwhelmingly, the program was considered positive by all students and their teachers. A summary of their comments is reported below. Students' names have been substituted for numbers for the purpose of confidentiality.

Student number 1 was a keen attender and participant in the Classroom Canines™ program . He had felt despondent when reprimanded, but wasn't reprimanded in the program. He really enjoyed the program and playing with 'Charlotte'. The teacher noted that he reminded her about the program every Wednesday.

Student number 2 was excited about the program because he had never read to a dog before. He enjoyed giving the dogs treats but did not like the change in dogs during the program. His teacher thought that the Classroom Canines™ program would have a positive impact on his reading ability, self-esteem and learning. By the end she said it was a great program and the student enjoyed it, but would benefit from longer reading sessions.

Student number 3 and his teacher were uncertain about the Classroom Canines™ program to begin with, but the student now says he liked coming to school more since the program began. He identified the best aspect of the program as talking to the Delta volunteer.

Student number 4 always looked forwards to the Classroom Canines™ program because he liked playing with the dog, and in particular reading to the dog. The teacher thought it would build his confidence to try new things. The teacher thought the program was a great concept but would be better at a different time in the day as it was close to lunchtime.

Student number 5 was enthusiastic about the Classroom Canines™ program, and her teacher hoped it would provide her with someone to listen to her read, other than the teacher. Since commencing the program, the teacher felt that the student has shown more effort regarding learning and participation in class. The student said she is more motivated to come to school now, because of reading to 'Charlotte'. She said the program was "very fun" and she looks forward to repeating the program. The teacher believes that Classroom Canines™ is a great program for students with low readings levels or who lack reading engagement.

Student number 6 looked forwards to commencing the Classroom Canines™ program because he thought it would help him and that he would enjoy patting the dog. He said that he already reads to his cat sometimes. Overall he enjoyed the program, particularly patting the dog. He believed his reading improved because although he tried before, he didn't know the words. He said that now he does know the words. He struggled a little with the changeover in dogs, preferring the first dog with whom he had already established a relationship.

Student number 7 felt good about beginning the Classroom Canines™ program and the teacher thought she would love reading to a dog. Overall, this student thought the program was good and her favourite part of the program was reading to the dog. She said she would like to do read to the dog again. The teacher said that the program gave students "a great opportunity to read and develop their confidence."

Student number 8 was a poor attender of the Classroom Canine™ program and there were little data with which to work. Initially, the teacher had hoped

Classroom Canines™ would help this student centre himself and find his focus, but there appeared to be little change in his general performance and attitudes.

Student number 9 was very excited about participating in the Classroom Canines™ program. The teacher hoped it would give him “motivation to participate, a topic to talk about and a calming effect around relationship issues.” This student enjoyed the program, particularly patting, reading and interacting with the dog. There was nothing that he did not like about the program and he looked forwards to taking the dog for a walk around the school ‘next time’. The teacher said that he loved the program and that the program should be offered more regularly and to more students.

In the next section, we have chosen to highlight the experiences of students number 10 and 11, who we will call by pseudonyms for the purpose of this report, as they highlight the considerable impact the program had on them. Michael and Juanita’s stories are as follows:

Student Profiles

Michael

From the start, Michael liked school and saw himself as a good learner. But his teacher said he had trouble with motivation and an apparent fear of failure. Now Michael believes he is more confident and learning more, enjoying school and his achievement of receiving 3 ‘shining stars’.

Michael went from PM Level of 8 in Term 2 to a PM Level of 12 in Term 4, a substantial change. Michael liked reading with people who could help him and the teacher noted that he prefers familiar books and is reluctant to try new books. However, Michael says that since joining the Classroom Canines™ program, he reads different kinds of books and is up to Level 12. The teacher noted that while his (overall) attendance, behavior and attitudes have remained the same, but his confidence in reading has developed and he has made progress. Although

normally he has trouble focusing, Michael did not miss any Classroom Canines™ sessions and remained focused throughout each session.

Michael was reported to be good socially until disagreements arise. At the end of the program, his relationships to teachers and dogs remained positive, but he still has a few problems with peers, and identified someone who bullies him. The teacher reported that Michael's social skills had improved and that he was communicating better.

Michael liked dogs and cats and had a number of pets at home. He appeared to have the strongest affinity to the Classroom Canines™ dog 'Charlotte' during the program. He wrote stories about her, drew her a picture (attached) and even brought a toy dog (of the same breed as 'Charlotte') to class for her to play with (photograph attached).

Michael was somewhat nervous about Classroom Canines™ at the start, and the teacher had hoped that the program would help him to develop patience, resilience and a willingness to try. By the end, Michael was enthusiastic about the program, calling it "cool", and particularly liked Charlotte, the dog. He did not like when he had to read to a different dog. He got very excited when Charlotte was due to arrive, and waited to meet her at the door each week. Charlotte's handler, also appeared to build a bond with Michael. The teacher found the program beneficial as it gave students the opportunity to read and develop their confidence. She saw the most difference with Michael as compared with other children in the program. Michael's family reported, "All he ever talks about is Charlotte the dog."

Juanita

Juanita always liked school, but lacked motivation. Participating in the Classroom Canines™ program seemed to improve her motivation. Juanita always looked forward to the program on Wednesdays and did not miss any Classroom Canines™ sessions.

Despite the apparent increase in motivation, Juanita's reading score decreased from pre to post program. However, the teacher believes that this was due to other issues in Juanita's life and that her score had probably fluctuated over the year. When Juanita began the program she was considered to be an inconsistent reader at best.

Juanita interacted well with others but was reported as being moody and didn't think others liked her. At the end of the program, she said that she still doesn't get along with her peers but, although she always got along with teachers, she thinks that her relationships with them have improved. When the teacher told her that her reading was good, Juanita said "it is because of reading to a dog". The teacher thought her relationships have remained the same and that she is sociable.

Juanita had several pets at home and made friends with animals, but since the program she believes she now gets along better with dogs.

Juanita was nervous about the Classroom Canines™ program at the start, but said that she really enjoyed the program. The teacher hoped that the program would calm and help Juanita to focus. Despite Juanita preferring to play with than to read to the dog, the teacher reported that she is now more motivated to read, particularly to the dog, and that her confidence levels have improved when she reads aloud.

Conclusion and Recommendations

This pilot study investigated the impact of the Classroom Canines™ program on the reading and social/emotional skills and attitudes to dogs of 11 selected students at Woree State School, Cairns. The students, who ranged in age from 5-11 years, were identified as falling below or being at risk for falling below the academic benchmarks for their year level. The study utilised both quantitative and qualitative data, including reading scores, attendance records, classroom

observations, artefacts (work samples), interviews with teachers and students, and researcher journals.

Overall attendance improved during the Classroom Canines™ program. Students who historically had poor attendance records made the point of attending the sessions so that they could read to the dogs. Some of the students formed strong emotional bond with the dogs, and, as shown by other research in the field (Friesen, 2010b), these students chose to write stories to the dog that were not required by the teacher. This demonstrates their enthusiasm for the program. This level of attachment might account for the problems that some students had when the dogs in the program changed over due to a volunteer having to leave the program. Consistency with scheduling Delta volunteers, and thus their dogs, appears to be an important point for consideration in the rolling out of future Classroom Canines™ programs.

Reading scores improved during the Classroom Canines™ program. An unexpected finding was that the participating students' reading levels appeared to be on a par with the rest of class, i.e. similar to students who were not identified as requiring learning support. The majority of students reported improvements to themselves as learners, including enhanced confidence, attitude and cooperation and reported improvements in social relations with both their peers and their teachers. These views were supported by teachers' impressions. Interestingly, some students' attitudes to animals, particularly dogs, also appeared to improve during the program, despite all the students reporting that they liked animals before the study commenced. Possible reasons for the successful outcomes include the fact that dogs are non-judgemental and are fun to be around; allowing students to relax, gain confidence and change their attitudes towards learning. Some may even associate these positive learning experiences with dogs and enjoy being around dogs even more.

Limitations to this study included that the research was conducted on a small sample of students and over a short period of time. In addition, only children identified as having problems accessed the Classroom Canines™ program. In

the future, the program could be open to all students and research could be conducted on a larger scale and over an extended period of time.

In conclusion, findings from this preliminary study support the benefits of dog-assisted programs to motivate students and improve their reading, confidence and self-esteem, as well as enhance relationships with people and dogs.

Although further research is required, these results highlight the need for schools in Australia to adopt such dog assisted programs for the classroom to motivate students who do not enjoy reading and/or lack confidence and self-esteem.

Acknowledgements

The authors of this report would like to thank the participants and staff, in particular Stephen Bell and Jo Sibley, at Woree State School, for their involvement in this project. Thanks are also extended to the Delta Society, Australia, Delta volunteers and their dogs. The authors are also grateful for a grant to conduct the study from the Woree state School and for the invaluable input of the research assistants, Miriam Torzillo and Tamara Brooks.

References

- Beck, A., & Katcher, A. (2003). Future directions in human-animal bond research. *The American Behavioral Scientist*, 47(1): 79-93.
- Becker, M., & Morton, D. (2002). *The Healing Power of Pets: Harnessing the Amazing Ability of Pets to Make and Keep People Happy and Healthy*. New York, NY: Hyperion Books.
- Burt, J. (2001). The Illumination of the animal kingdom: the role of light and electricity in animal representation. *Society and Animals*, 9(3): 203-228.
- Cornu, J., Cancel-Tassin, G., Ondet, V., Girardet, C., & Cussenot, O. (2011). Olfactory detection of prostate cancer by dogs sniffing urine: a step forward in early diagnosis. *European Urology*, 59: 197-201.
- Davidse, N., Jong, M., Bus, A., Huijbregts, C., & Swabb, H. (2011). Cognitive and environmental predictors of early literacy skills. *Read Writ.*, 24: 395-412.
- Dorriety, J. (2005). Police service dogs in the use-of-force continuum. *Criminal Justice Police Review*, 16(1): 88-98.
- Duffy, D., & Serpell, J. (2008). Behavioral assessment of guide and service dogs. *Journal of Veterinary Behavior*, 3(4): 186-188.
- Flom, B. (2005). Counselling with pocket pets: using small animals in elementary counselling programs. *Professional School Counselling*, 8(5): 469-471.
- Friesen, L. 2010a. Exploring animal-assisted programs with children in school and therapeutic contexts. *Early Childhood Education*, 37: 261-267.
- Friesen, L. (2010b). Literacy learning goes to the dogs, animal-assisted literacy proves positive. *ATA Magazine*, 91(2): 14-16.
- Geist, T. (2011). Conceptual framework for animal assisted therapy. *Child Adolescence Social Work Journal*, 28: 243-256.
- Goleman, D. (1990). Health; children and their pets: unexpected psychological benefits. *New York Times*, B10.
- Hall, J. (2009). Dogs are a reader's best friend; animals make great listeners for kids learning the basics about books. *Edmonton Journal*, B1.
- Heimlich, K. (2001). Animal-assisted therapy and the severely disabled child: a quantitative study. *Journal of Rehabilitation*, 67(4): 48-54.

- Hill, S., & Launder, N. (2010). Oral language and beginning to read. *Australian Journal of Language and Literacy*, 33(3): 240-254.
- Hirschman, E. C. (1994). Consumers and their animal companions. *Journal of Consumer Research*, 20: 616-632.
- Jalongo, M. (2005). "What are all these dogs doing at school?": Using therapy dogs to promote children's reading practice. *Childhood Education*, 81(3): 152-158.
- Jenkins, R. (2009). *The Delta project: investigating the therapeutic use of animals*. BSc (Hons) thesis. Deakin University, Geelong, Victoria.
- Jones, K., Dashfield, K., Downend, A., & Otto, C. (2004). Search-and-rescue dogs: an overview for veterinarians. *JAVMA*, 225(6): 854-860.
- Katcher, A. H., Friedmann, E., Beck, A. M., & Lynch, J. (1983). Looking, talking and blood pressure: the physiological consequences of interaction with the living environment. In A. H. Katcher & A. M. Beck (Eds.), *New perspectives on our lives with companion animals* (pp. 351-359). Philadelphia: University of Pennsylvania Press.
- Kruger, A. & Serpell, J. A. (2006). Animal assisted interventions in mental health: definitions and theoretical foundations. In A. H. Fine (Ed.), *Handbook on Animal-Assisted Therapy, Theoretical Foundations and Guidelines for Practice*. Amsterdam: Elsevier.
- Lane, D. R., McNicholas, J., & Collis, G. M. (1998). Dogs for the disabled: benefits to recipients and welfare of the dog. *Applied Animal Behaviour Science*, 59(1-3), 49-60.
- Levinson, B. (1984). Human/companion animal therapy. *Journal of Contemporary Psychotherapy*, 14(2): 131-144.
- Lloyd, J. K. F. (2004). *Exploring the match between people and their guide dogs*. PhD thesis. Massey University, Palmerston North, New Zealand.
- Mallon, G. (1992). Utilization of animals as therapeutic adjuncts with children and youth: a review of the literature. *Child and Youth Care Forum*, 21(1): 53-67.
- Mallon, G. (1994). Cow as co-therapist: utilization of farm animals as therapeutic aides with children in residential treatment. *Child and Adolescent Social Work Journal*, 11(6): 455-474.

- Martin, F., & Farnum, J. (2002). Animal-assisted therapy for children with pervasive developmental disorders. *Western Journal of Nursing Research, 24*(6), 657-670.
- Meadan, H., & Jegatheesan, B. (2010). Classroom pets and young children. *Young Children, 65*(3): 70-77.
- Mitchell, D., & Mueller, M. (2011). A philosophical analysis of David Orr's theory of ecological literacy: biophilia, ecojustice and moral education in school learning communities. *Cultural Study of Scientific Education, 6*: 193-221.
- Morell, V. (1997). The origin of dogs: running with the wolves. *Science, 276*(5319), 1647-1648.
- New, J. C., Wilson, C. C., & Netting, F. E. (1986). How community-based elderly perceive pet ownership. *California Veterinarian, 40*(5), 22-27.
- Rock, M., & Lail, P. (2009). Could pets be of help in achieving health literacy? A media analysis demonstration study. *Health Education Research, 24*(1): 153-161.
- Schaffer, C. (2008). Enhancing human-animal relationships through veterinary medical instruction in animal-assisted therapy and animal-assisted activities. *JVME, 35*(4): 503-510.
- Siegel, W. (2004). The role of animals in education. *ReVision, 27*(2): 17-26.
- Shadforth, G. (2008). Biophilia – a learning experience. *Journal of the Victorian Association for Environmental Education, 31*(2): 8-10.
- Scott, K., Haseman, J., & Hammetter, R. (2005). Kids, dogs, and the occupation of literacy. *O.T. Practice, 1*(3), 16-20.
- Sorin, R. (2012). "I do writing on Monday so I can read to the dog" – The impact of the Classroom Canines program on young children's literacy learning. *Proceedings of the 8th International Conference on Education*. ISBN: 978-618-5009-05-2.
- Stokes, D. L. (2007). Thing We Like: Human preferences among similar organisms and implications for conservation. *Human Ecology, 35*: 361-369.
- Townsend, H. (2003). Sixth-graders with dogs help younger kids hone reading skills. *The San Diego Union-Tribune*, Retrieved 28 February 2014 from

http://legacy.signonsandiego.com/news/education/20031023-9999_m1m23tfencin.html

- Truett, C., & Becnel, K. (2011). Paws for reading, North Carolina libraries go to the dogs. *Public Libraries*, 60(4): 44-47.
- Turner, A. (2011). *Paws for thought: exploring a framework for understanding the mediating role of dogs in people's learning processes in vocational education and training settings*. PhD thesis, James Cook University, Townsville, Australia.
- Wade, (2002). From wolf to dog, yes, but when? *The New York Times*, Retrieved 28 February 2014 from <http://www.nytimes.com/2002/11/22/us/from-wolf-to-dog-yes-but-when.html>
- Walsh, F. (2009). Human-animal bonds I: the relational significance of companion animals. *Family Process*, 48(4): 462-480.
- Willis, J. (2009). What brain research suggests for teaching reading strategies. *The Educational Forum*, 73(4): 333-346.
- Yin, R.K. (2009). *Case Study Research – Design and Methods*. 4th edition. Thousand Oaks, California: SAGE.
- Zhu, R. X., Potte, R., Xie, F., Hoffman, K. A., Deng, C. L., Shi, C. D., Pan, Y. X., Wang, H. Q., Shi, R. P., Wang, Y. C., She, G. H., & Wu, N. Q. (2004). New evidence on the earliest human presence at high northern latitudes in northeast Asia. *Nature*, 431(7008): 559-62.



Dogged listeners bring out best in students

Bianca Keegan

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A COUPLE of classroom canines have an important job to do.

James Cook University researchers have teamed up with Delta Society, an organisation that trains dogs for therapy, to start a reading program at Woree State School.

The innovative pilot program will test out whether literacy skills can be improved through positive interactions with dogs, says JCU animal behaviourist Dr Janice Lloyd.

"We have a special interest in the human-animal bond and how dogs benefit people mentally and physically," Dr

Lloyd said.

"We are hoping to quantify any changes in children's literacy skills as well as assessing any effects interaction with a dog may have on social and cognitive development."

Woree State School deputy principal Joanne Sibley said two dogs visited a group of students, aged six to 11, at the school each Wednesday.

"The kids sit next to the dog and they read the dog a story, and the handler sits there with them," she said.

"We're hoping the dogs are going to build (the child's)

confidence and independence with reading."

Delta Society co-ordinator Sandra Glaister said they were thrilled to offer their furry friends to children at Woree.

"The program is designed to help children improve their reading skills, using specially trained volunteers and their Delta-accredited dogs," Ms Glaister said.

The program has also been conducted in Townsville, Geelong and Newcastle to provide schools with an additional learning tool to encourage overall student development.



Canine in class: Woree State School Year 2 students Daniel Munro and Tashina Anau with border collie Charlotte.

Photo: BREIDAN FRANCIS

Dogs help boost kids' literacy skills

It's no secret that pets are good for our health and well-being, but how about dogs making us smarter?

James Cook University researchers will put the theory to the test when they monitor the Delta Society's Classroom Canines programme which is being piloted in Cairns at Woree State School.

The program is designed to assist children to improve their literacy skills through positive interactions with dogs.

Animal behaviourist Dr Janice Lloyd from JCU's School of Veterinary and Biomedical Sciences has teamed up with Dr Reesa Sorin from the university's School of Education to study the impact of the programme on the Woree State School students' literacy and social development.

"We have a special interest in the human-animal bond and how dogs benefit people mentally and physically," Dr Lloyd said.

"The research is an exciting collaboration amongst the two JCU schools, the Delta Society and Woree State School.

"We are hoping to quantify any changes in children's literacy skills as well as assessing any effects interaction with a dog may have on social and cognitive development."

Woree State School Deputy Principal Joanne Sibley said it was a fantastic opportunity for their students to engage in new and meaningful ways to increase their fluency and confidence in reading.

"The 12 students involved in the initial program are excited about reading to their furry friends," she said.

Delta Society coordinator Sandra Glaister said they were thrilled to offer the Classroom Canine Program to children at Woree State School.

"The program is designed to help children improve their reading skills, using specially trained volunteers and their Delta accredited dogs," Ms Glaister said.

The volunteers and their temperament-tested dogs will visit Woree State School on a weekly basis throughout Term 3 to coincide with the students' reading lessons – either with an individual child or in a group environment.

So far the program has been conducted in Townsville, Geelong and Newcastle and provides schools with an additional learning tool to encourage the overall development of a student.

Previous research conducted in Townsville at Stuart State School by Dr Sorin indicated students and teachers were very enthusiastic about the program.

"We envisage special bonds and relationships will also be forged between students and dogs," Dr Sorin said.

The initiative for the pilot project is made possible by funding from Woree State School, and future funding will be sought by Doctors Sorin and Lloyd to deliver the program to schools across Australia.

Visit www.deltasocietyaustralia.com.au for information on The Delta Society Classroom Canine Program.

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Dogs may help boost kids' literacy:

We know dogs are good for our health and wellbeing, but they could also help children learn to read.

By Motherpedia

Date: August 13 2013

Tags: [literacy](#),



The capacity of dogs to help with children's literacy levels is being put to the test at a pilot program in a state school in Cairns.

Woree State School is taking part in the Delta Society's Classroom Canines program which helps kids lacking confidence and needing additional support in literacy, through the attention of a specially-trained volunteer and their canine companion.

"Dogs are incredibly loyal, attentive and non-judgemental. Classroom Canines is more than just a reading program," explained Delta Society coordinator, Sandra Glaister.

"The aim is to help children improve their reading skills, using specially trained volunteers and their Delta-accredited dogs," Ms Glaister said.

The volunteers and their temperament-tested dogs will visit Woree State School on a weekly basis throughout this term for reading lessons, either with an individual child or in a group environment.

The Classroom Canines Program is being monitored by animal behaviourist, Dr Janice Lloyd, and education expert, Dr Reesa Sorin, from James Cook University in Townsville.

"We have a special interest in the human-animal bond and how dogs benefit people mentally and physically," Dr Lloyd said.

"The research is an exciting collaboration between the two JCU schools, the Delta Society and Woree State School. We are hoping to quantify any changes in children's literacy skills as well as assessing any effects interaction with a dog may have on social and cognitive development."

Woree State School Deputy Principal Joanne Sibley said it was a fantastic opportunity for their students to engage in new and meaningful ways to increase their fluency and confidence in reading.

“The 12 students involved in the initial program are excited about reading to their furry friends,” she said.

So far the program has been conducted in Townsville, Geelong and Newcastle. It provides schools with an additional learning tool to encourage the overall development of a student.

Previous research conducted in Townsville at Stuart State School by Dr Sorin found students and teachers were very enthusiastic about the program.

“We envisage special bonds and relationships will also be forged between students and dogs,” Dr Sorin said.

The initiative for the pilot project is made possible by funding from Woree State School. Dr Sorin and Dr Lloyd plan to seek future funding to deliver the program to schools across Australia.

Delta Society Australia is a national not-for-profit organisation with one core belief: that the human-animal bond remarkably improves our quality of life and leaves a lasting paw print on our hearts. They also conduct therapy programs and classes to help children be safe around dogs.

Further information at [Delta Society Australia](#).

'Across the Creek'

Newsletter of JCU's School of Veterinary & Biomedical Sciences

Across the Creek



BJD Research

If you were to think of an incurable wasting disease in cattle, Bovine Johne's disease would usually come to mind.

Its recent diagnosis in breeding animals near Rockhampton has questioned the belief that the disease was absent from Queensland cattle. The disease develops slowly in cattle, is difficult to diagnose in the early stages and the causative bacterium *Mycobacterium avium* subspecies *paratuberculosis* (Mptb) can survive for up to a year in soil. This makes the disease difficult to detect and eradicate for veterinarians. Beef property managers find the disease especially difficult to control.

A project was initiated by VBMS under the leadership of Professor Wayne Hein and Professor Robert Hedlief, and in partnership with

Dr Douglas Begg at University of Sydney and Dr David Waltisbuhl at Q-DAFF, and funded by Meat and Livestock Australia (MLA) and James Cook University. It aims to investigate how long the bacterium survives in the harsh environment of North Queensland. Mptb is unusually slow-growing, taking up to 3 months before visible growth can be observed in culture medium. Therefore, other aims of the project are to use molecular diagnostic tools to develop rapid ways of detect living bacteria and to find out what organisms cause cross-reactions with the high throughput diagnostic PCR.

This project concludes in December 2016 and will involve collaboration between VBMS, DAFF(Queensland), University of Sydney and some beef producers.



A healthy Brahman bull infected with Mptb.



The same bull 7 months later after he had succumbed to Johne's diseases.

Dogs Help Boost Literacy

Animal behaviourist Dr Janice Lloyd is currently monitoring the Delta Society's Classroom Canines program which is being piloted in Cairns at Woree State School.

The program is designed to assist children to improve their literacy skills through positive interactions with dogs.

Dr Lloyd has teamed up with Dr Reesa Sorin from the university's School of Education to study the impact of the program on the Woree State School students' literacy and social development.

"We have a special interest in the human-animal bond and how dogs benefit people mentally and physically," Dr Lloyd said.

"The research is an exciting collaboration amongst the two JCU schools, the Delta Society and Woree State School.

"We are hoping to quantify any changes in children's literacy skills as well as assessing any effects interaction with a dog may have on social and cognitive

development."

Delta Society coordinator Sandra Glaister said they were thrilled to offer the Classroom Canine Program to children at Woree State School.

"The program is designed to help children improve their reading skills, using specially trained volunteers and their Delta accredited dogs" Ms Glaister said.

The volunteers and their temperament-tested dogs will visit Woree State School on a weekly basis throughout Term 3 to coincide with the students' reading lessons – either with an individual child or in a group environment.

So far the program has been conducted in Townsville, Geelong and Newcastle and provides schools with an additional learning tool to encourage the overall development of a student with data to be ongoing for the next several months.

The initiative for the pilot project

is made possible by funding from Woree State School, and future funding will be sought by Doctors Sorin and Lloyd to deliver the program to schools across Australia.

Visit www.deltasocietyaustralia.com.au for information on The Delta Society Classroom Canine Program.



IMAGE: Leisa Kellher and her champagne Border Collie, Charlotte. Leisa and Charlotte are one of the Delta Therapy Teams that are visiting the children taking part in the JCU Classroom Canines project at Woree State School in Cairns.

Welcome

- Caroline Walker, School Examinations officer
- Dr Donnalee Taylor, Virology Lecturer cover for Dr Graham Burgess (Microbiology & Immunology)
- Adele Goeldes, School Administration Officer cover for Lorraine Henderson.

Turtle Workshop

The 3rd Annual Sea turtle health Symposium was once again hosted at JCU with lectures, workshops and a hands on experience for the participants. People came from all over Australia and different walks of life, and we even had international attendance this time round. There were people representing government agencies, indigenous rangers, volunteers, scientists, policy makers and students.

The 3 day event was packed with activity and over 100 participants benefitted from social interaction with other like-minded people from Sea Turtle Health backgrounds and were able to share experiences and learn new tricks in the field.

The event was co-organised by JCU, Seaturtle Foundation, Threatened Species Unit, Department of Environment and Heritage Protection and Great Barrier Reef Marine Parks Authority.



Drawing Michael did for 'Charlotte' the Border Collie



Toy dog (of same breed) that Michael brought to school for Charlotte.

