



THE WINSTON CHURCHILL MEMORIAL TRUST OF AUSTRALIA

Report by – Leonie Jackson – 2006 Churchill Fellow

THE NANCY FAIRFAX CHURCHILL FELLOWSHIP

To examine

innovative programs for deaf preschool, primary and secondary school students including the use of the Reggio Emilia approach in early learning programs - USA, U.K.

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Signed Leonie Jackson

Date 31st May 2007

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INTRODUCTION

This report outlines key findings from a 2006 Churchill Fellowship to England and United States to examine innovative ideas for educational programs that are specifically designed for deaf children from preschool to Year 10 particularly the use of Reggio Emilia philosophy in early learning programs and technology as a tool of empowerment for all ages.

Like many others who work in the area of deaf education, I wanted to examine first hand the exceptional and innovative programs for deaf and hearing impaired students in the States and United Kingdom particularly in the area of technology and use of various educational pedagogy in order to give deaf and hearing impaired students better access to further their knowledge and skills as a foundation for life.

Therefore this fellowship examined 1) the adoption of the Italian “Reggio Emilia” teaching philosophy in deaf education which is not widely known in Australia or in deaf education and 2) the use of technology to support the educational program of deaf children not only in Sydney but also in other areas outside of Sydney.

Innovative ideas including setting up a global virtual classroom, use of video conferencing for supporting families and professionals, creating online courses for secondary students, use of smart board technology for all ages and a virtual shared reading program for parents of deaf children were examined during the trip. All of these ideas are based on the belief that use of technology does empower deaf students in their everyday lives.

The “Reggio Emilia” philosophy for young deaf children is also empowering. The use of this philosophy will allow young deaf children develop a keen awareness of their environments and a higher level of thinking and problem solving skills which acts as a foundation for life. I was in a fortunate position to observe the use of the “Reggio Emilia” approach in the programs for deaf and hearing impaired students aged 0-9 years.

This report is a fusion of my observations, learnings and ideas during the trip to U.K and U.S.A. The aim of this report is to present new ideas to my colleagues in Australia and does not seek to undermine any current pedagogy for deaf children.

ACKNOWLEDGEMENTS

- The Nancy Fairfax Churchill Fellowship which enabled me to travel to the United States of America and the United Kingdom to explore and bring back innovative ideas that will benefit many deaf and hearing impaired students from pre-school to Year 10 and beyond. I wish to acknowledge the Vincent Fairfax Family Foundation for their generosity and support.
- I also wish to acknowledge the Winston Churchill Fellowship Memorial Trust for their recommendation that I was selected to be a member of the 2006 Churchill Fellows community. The support provided by the Trust during the fellowship is deeply appreciated. This fellowship is one of the highlights of both my personal and professional life.
- This project was developed with the support of my work colleagues and mentors namely Mrs. Jan North, Dr. Maree Madden, Professor Gregory Leigh and Mr. Peter Cippollone for their encouragement and support during the Fellowship. Also to my work colleagues, Chris Ashenden, Karen Marsh, Rod Noble and Kathy MacDonald for 'holding the fort' while I was away and doing a fantastic job.
- My family and close friends, particularly my parents and my friend, Alex Jones for their support and encouragements throughout the Fellowship.

EXECUTIVE SUMMARY

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Project

To examine innovative programs for deaf preschool, primary and secondary school students including the use of the Reggio Emilia approach in early learning programs.

The fellowship trip was completed during Term 4, 2006 (October-December). The aim was to explore

- ideas using the 'Reggio Emilia' philosophy in early learning programs for deaf and hearing impaired students aged 0-9 years
- ideas using information technology to enhance current educational programs for deaf and hearing impaired students for all ages.

Programs visited

Educational programs and services in U.S.A and U.K were visited:

United Kingdom:

- National Deaf Children Society, London
- Blanche Neville School, Highgate
- Derrick Wood School, Bromley
- University of Manchester, Manchester
- Royal School for the Deaf, Exeter
- Deafax, Reading University, Reading
- Frank Barnes School, London

U.S.A:

- Kendall Elementary Demonstration School, Washington, D.C.
- Model Secondary School for the Deaf, Washington, D.C.
- National Mission Project, Gallaudet University, Washington, D.C.
- Lied Technology and Early Childhood Center for Deafness, Omaha, Nebraska
- Lexington School of the Deaf, New York City

Recommendations

Innovative ideas including setting up a global virtual classroom in partnership with two other deaf schools overseas, use of video conferencing for supporting families and professionals, creating online courses for secondary students, use of smart board technology for all ages and a virtual shared reading program for parents of deaf children will be developed and trialed during the year 2007. Modifications using ideas from observations of the "Reggio Emilia" approach used in deaf educational programs in the USA will also be trialed in the early learning programs for deaf students at the Royal Institute for Deaf and Blind children. All of these ideas will be set up as a model for other educational programs in Australia.

Implementation and dissemination

The findings learned will directly feed the development of an enhanced educational model for deaf and hearing impaired students at the Royal Institute for Deaf and Blind Children. Once the model is set up, professionals and other interested parties will be invited to observe this in action. There will also be an opportunity for colleagues to share information and provide the model with feedback. Findings from the trialing of above mentioned ideas will be shared through workshops, seminars and conferences to fellow professionals and relevant groups via the Professional and Continuing Education program at the Royal Institute for Deaf and Blind Children.

PROGRAMME

Educational programs and professional services in U.S.A and U.K were visited:

United Kingdom:

1. National Deaf Children Society, London. Meeting with Lorna Williams, Educational Resources Officer and the Information team.
2. Blanche Neville School, Highgate. Bilingual and total communication educational program for deaf and hearing impaired students. Observed 3 classrooms from Year 3 to Year 6.
3. Derrick Wood School, Bromley. School within a school for secondary deaf and hearing impaired students. Observed 4 classrooms from year 7-10. Meeting with Louise Swatton.
4. University of Manchester, Manchester. This university provides a training program for teachers of the deaf. Meeting with Wendy McCracken.
5. Royal School for the Deaf, Exeter. A week-long observations and meetings with various teachers of the deaf and associated professionals. This school caters for primary, secondary and 16+ college deaf and hearing impaired students.
6. Deafax, Reading University, Reading. Meeting with Ken Carter, the founder of Deafax, an access program for deaf and hearing impaired students via technology.
7. Frank Barnes School, London. A week-long observations and meetings with various teachers to discuss use of 'smart-board' technology in a bilingual primary program for deaf students.

United States of America:

1. Kendall Elementary Demonstration School, Washington, D.C. A primary bilingual program for deaf students. Up to 4th grade, the Reggio Emilia philosophy is implemented. I also had the opportunity to observe a global virtual classroom in practice and how various forms of technology was used in the classroom, particularly from fourth grade and up.
2. Model Secondary School for the Deaf, Washington, D.C. A secondary bilingual program for deaf students from 9th Grade to 12th Grade. All teachers use various forms of technology including smart board, webcams, blackboard and video conferencing in the classroom.
3. National Mission Project, Gallaudet University, Washington, D.C. The National Mission Project at Gallaudet University was set up in 2005 to look at
 - a. Literacy
 - b. Family
 - c. ResourcesMeetings with various staff including Janne Harrelson and Nancy Berrigan.
4. Lied Technology and Early Childhood Center for Deafness, Omaha, Nebraska. LIED is a centre that services families of deaf and hearing impaired students. A week-long observation of individual sessions, video conferences between professionals and families, feedback sessions on educational interpreters via video conferences, planning sessions and team meetings.
5. Lexington School of the Deaf, New York City. A bilingual secondary school program. Observed 4 teachers using the following technology in their classrooms – interactive white board, virtual chat software, internet programs and captioning software.

MAJOR FINDINGS AND OBSERVATIONS

THE QUEST FOR INNOVATIONS

Australia has a reputation as one of the world's leading educators for deaf students of all ages using various pedagogies including sign bilingualism, auditory-verbal and total communication. Educators in this field have a strong commitment to providing the best possible educational programs to ensure the best possible outcomes for each deaf child in the programs. Therefore there is always a quest for new ideas to continually raise the bar in deaf education here in Australia.

Many countries including England and America have been teaching deaf children a lot longer than here in Australia. Technology is more advanced in those countries and therefore educators have been using these technologies longer than their Australian peers. Australia is geographically and demographically an isolated country and therefore sharing information and ideas between different states in Australia is a challenge but not impossible. The quest for new ideas to share among my colleagues here in Australia is what this fellowship is about.

The project examined a number of innovative educational ideas that are leading the future of deaf education overseas. These include:

- Use of Reggio Emilia philosophy in the early learning programs for deaf students aged 0-9 years.
- Use of various technologies in the classrooms to promote and reinforce deaf children's literacy skills including interactive whiteboards, computer software programs, interactive blackboards, captioning of various videos and broadcasting of 'homemade' television programs.
- Use of videoconferencing facilities to provide support and programs for families of deaf children.
- Use of videoconferencing facilities to teach deaf and hearing impaired students online specific subjects that are not available in their local schools.
- Use of videoconferencing facilities for professional development and training sessions for educators, support staff and educational interpreters. This includes opportunities for professionals to exchange information and ideas from one program to another regardless of distance.
- A global virtual classroom involving 3 partner schools where students exchange work and interact online using video and written blogs.

The above-mentioned observations of ideas and practices will lead to:

- A global virtual classroom in partnership with two other deaf schools overseas;
- use of video conferencing for supporting families and professionals,

- creating online courses for deaf and hearing impaired students in secondary school programs as a pilot;
- use of smart board technology for all ages in the educational programs
- development of a virtual and local shared reading program for parents of deaf children;
- modifications using ideas from observations of the “Reggio Emilia” approach used in deaf educational programs in the USA in the early learning programs for deaf students at the Royal Institute for Deaf and Blind children;
- exploration of the possibility of setting up a ‘school within a school’ for secondary deaf and hearing impaired students;
- Using videoconferencing facilities to exchange information and ideas between educators between states;
- Using videoconferencing and internet facilities to facilitate ongoing communication and social interactions between deaf and hearing impaired students within Australia and abroad.

All of these ideas will be set up as a model for other educational programs in Australia. This report will provide details of my observations and ideas about each aspect mentioned above.

1. Use of Reggio Emilia philosophy in the early learning programs for deaf students aged 0-9 years.

Programs/organizations visited regarding this topic:

- Kendall Elementary Demonstration School, Gallaudet University, Washington D.C
- Lied Technology and Early Childhood Center for Deafness, Omaha, Nebraska

Professionals associated with these programs:

- Debra Cushner – Teacher/Researcher, Parent Infant Program
- Senoa Goehring – Teacher/Researcher, Nursery program (2-3 years old)
- Barbara Gleicher – Teacher/Researcher, Nursery program (2-3 years old)
- Darla Washington – Teacher/Researcher, Nursery program (2-3 years old)
- Christi Batamula - Teacher/Researcher, Nursery program (2-3 years old)
- Sibila Munoz - Teacher/Researcher, Nursery program (2-3 years old)
- Sherry Bedersen - Teacher/Researcher, Nursery program (2-3 years old)
- Brenda Perrodin – Teacher/Researcher, Pre-nursery program (1.5-2 years old)
- Steven Benson - Teacher/Researcher, Pre-kindergarten program (3-4 years old)
- Michelle Dowry - Teacher/Researcher, Pre-kindergarten program (3-4 years old)

- Charity Wran – Teacher’s Assistant, Pre-kindergarten program (3-4 years old)
- Kim Arnold – Teacher/Researcher, Integrated Kindergarten program (4-5 years)
- Beth Hall – Teacher/Researcher, Integrated Kindergarten program (4-5 years)
- Kris Mixan, Lead Teacher, Washington Pre-school Program, Omaha. (4-5 years of age)
- Amy Tyler Krings, Speech Pathologist, Washington Pre-school Program, Omaha.

Parent Infant Program (PIP)

Parent Infant Program is set up for parents and their deaf babies (up to 1 year of age) two days per week (Monday and Wednesday – 4 hours each day). The program is designed to look like a family’s lounge room with a kitchen attached. Upon discussions with the parents, this ‘home-like’ atmosphere and support from educators helps them to feel comfortable and relaxed. The parents value the professional advice from the staff and the opportunity to talk with other parents.

During my observations of this program, all of the parents had shared with each other what was happening at home. For example, one parent was telling the other parents about age-appropriate children’s books that she has found that was on special and how her child enjoys their ‘book time’ together.

Activities in the program are set up by Debra and the teacher’s assistant. These activities are designed for the babies to explore and discover. Debra interacts with each of the babies in turns. The teacher’s assistant took photos of each child and parents in the room and this will be collated later on into individual photo books for each child in the program.

The program:

9.00-10.30am: Parents would drop in when they are ready. Debra explained that she has no fixed rules about what time to turn up as she understands that it is no easy task for parents with young babies to arrive at a given time. This time slot is ‘playtime’. During my visit, Debra has set up a play area with soft mats and hanging soft toys for babies to look at and play with. Parents sit with their child and interact with each other, sharing experiences and stories.

10.30-10.50am: Group activity. Debra uses a ‘surprise box’. A speech therapist joins Debra for this time slot and they plan together the group activity.

10.50-11.15am Snack time in the kitchen. The kitchen has enough high chairs for everyone and parents would often bring in food to share with the others.

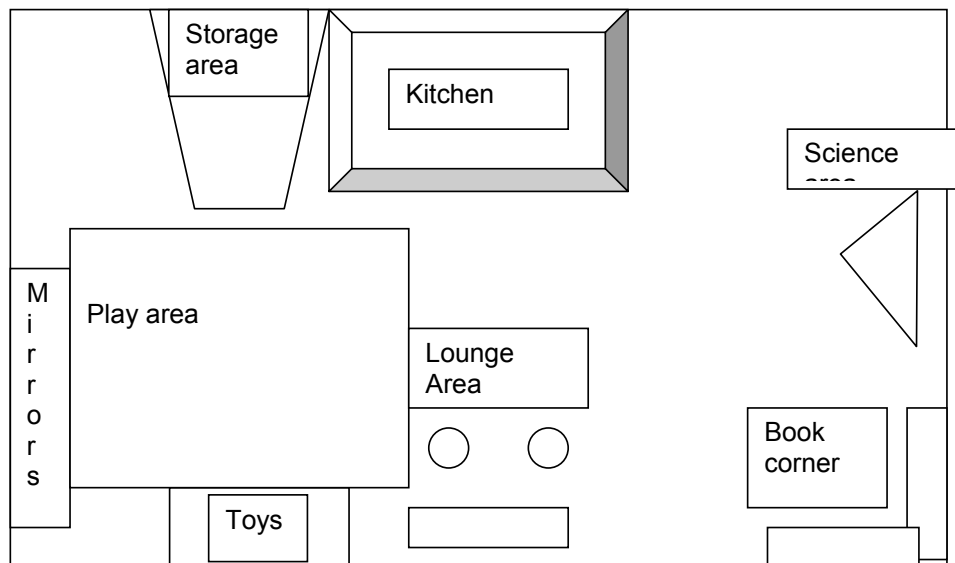
11.15-11.30am Gross motor activity. This activity is held either outdoors or indoors depending on the weather. During the visit, it was very cold outside so Debra has set up a large plastic box and put in dried rice for babies to try to climb in and out of the box.

11.30am-11.45am ASL story. (ASL = American Sign Language). A deaf storyteller comes in and tells a story in ASL for the babies and their parents. (Some of the parents are hearing and not fluent in ASL so it is a great opportunity for them to learn).

11.45 -11.55am Announcements and information sharing. Debra provides information about any future events, courses, workshops and resources that the parents might be interested in.

11.55-12.00noon Packing up and home time.

Layout of the room:



Science area: containers of different items are left in this area for babies to look at.

Book corner: there is also a notice board on the wall with notices and handouts for parents to take home. If a particular topic comes up during conversations with parents, Debra would seek articles about the topic and provide copies for parents to take home the following week.

Notes from discussions with Debra Cushner:

The program was established in 1987 due to lack of programs for parents of deaf babies especially after their child was diagnosed with a hearing loss. Prior to 1987 there was no known program for parents and deaf children under the age of 12 months. Parent Infant Program started implementing many elements of the Reggio Emilia's philosophy since 1997. Ms. Cushner attended professional development course about the Reggio Emilia philosophy prior to working for the PIP.

Ms. Cushner felt the parents and their deaf child benefits greatly from the Reggio Emilia philosophy as it provides opportunity for each deaf child to learn about their environment and develop language from then on.

The Nursery program (2-3 years)

Notes from the visit:

At the time of the visit, there were sixteen children in this group. The range of hearing loss is from moderate to severe through to profound. Some of these children are developing speech as well as ASL (American Sign Language).

Some group activities are 'speech only' and 'sign only'. Each child has an individual educational program and it is stated in this document whether the child's parents want their child to learn speech as well as signs or just signs. The reason some parents just wanted their child to have 'sign only' program while they are in the program is because their child is receiving intensive speech training elsewhere.

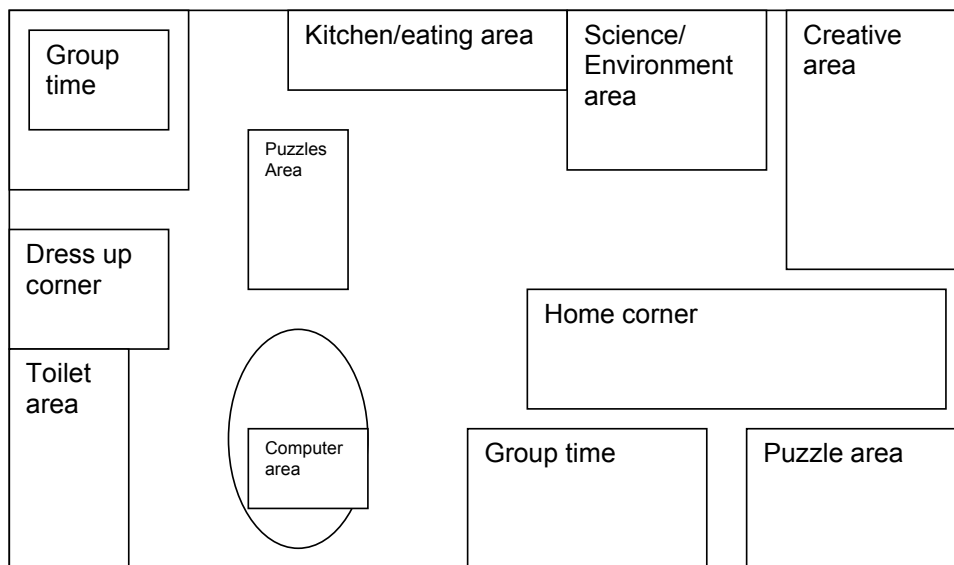
It is evident here that the teachers/researchers follows each child's interest as there were many activities set up in the room for each child to further their knowledge about their interests. The 'outdoor environment' is the current focus of the program. There is specific learning sessions with specialist teachers during the day and this is rotated by groups on separate days to allow each child in the program to have access to these specific learning sessions. The specific learning areas are

- Visual Art
- Performing Art
- Physical Education

These specialist teachers works with the teachers/researchers in the Nursery program and plan each session according to the children's interests at the time. For example, 6 of the students are interested in the weather outside (it was Autumn during the time of the visit). Therefore the Art Teacher uses leaves from outside and encouraged the students to experiment mixing colours to represent

'Autumn'. The Performing Art Teacher had the students moving like trees using a PowerPoint presentation of different trees as a backdrop.

Layout of the room:



This room is split into two areas and there are two entrances for each group to enter. The groups are interchangeable especially during 'speech only' and 'sign only' sessions.

The Pre-Nursery Program (1-2 years old)

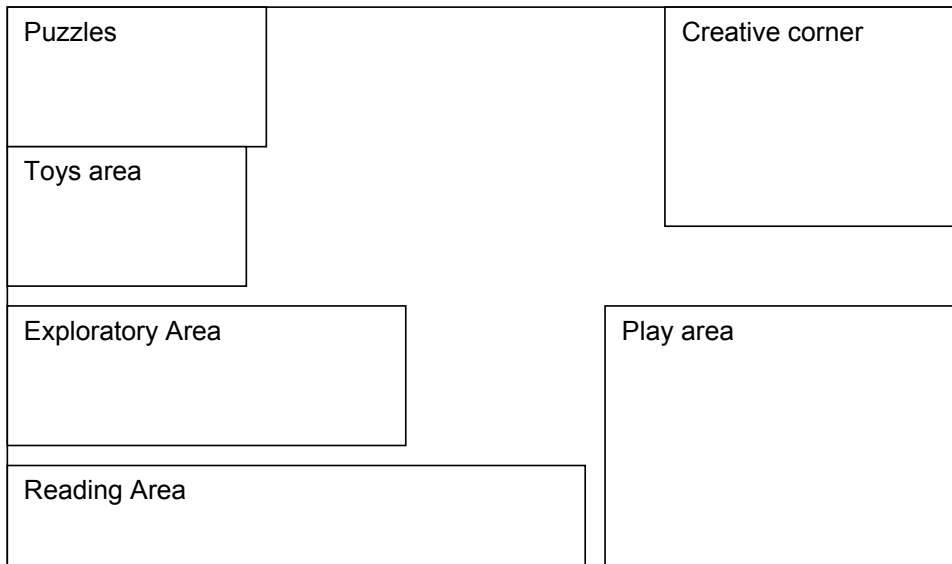
Notes from the visit to the classroom:

At the time of the visit there were six students in this program. Therefore the room is quite small. The teacher, Ms. Perrodin, explained that all of the students have similar interests. During the visit, all activities were planned to encourage the children to extend their knowledge about 'rocks'. In the room, there were:

- Rock printing (Art)
- Exploratory activity where the children look through their magnifying glasses different fossils found on rocks.
- Non-fiction books on rocks and fossils were found around the room.
- A rock collection was found in the play area where children create an outdoor scene with the rocks and plastic toys.
- Pictures and diagrams of different animals that live among the rocks were posted around the room.

- Drama activity where the students were pretending to be goats on the rocks.

Layout of the room:



This class uses other rooms for specific activities. For example, the children and staff used the Performing Art room for the drama activity where there were dress ups and musical instruments.

Pre-Kindergarten Program

Notes from the visit to the classroom:

Group 1:

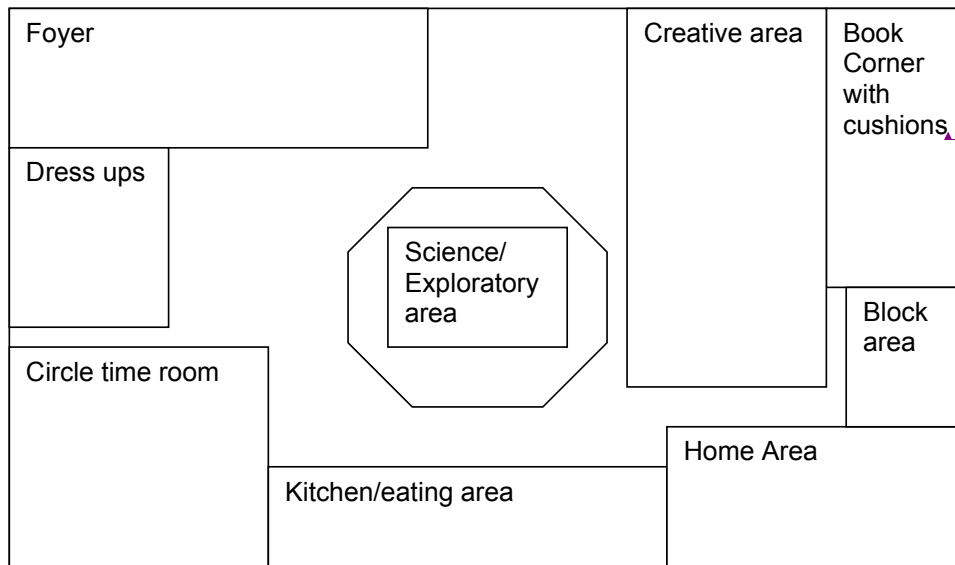
At the time of the visit, there were ten students in this group. The program is similar to the Nursery program but more structured in a way that it involves the students engaging in more group work. Like the other classes, the teacher/researcher focuses on each child's interest and develops a program that encourages each child to develop a higher level of thinking and problem solving skills.

The room is set up as a workstation. During group time observed, the teacher had a bag with various objects that represents an activity in the room. The teacher had enough objects for each student. For example:

- 3 x blocks for Building (up to 3 students can participate in this activity)
- 2 x stamps for ink stamping activity (up to 2 students can participate in this activity)
- 1 x finger-painting bottle (the actual bottle for this activity was in the bag)
- 2 x monsters finger puppets for book reading (the book was on monsters)
- 3 x small plastic houses for home corner
- 2 x plastic shapes for the creative corner

The students had up to 30 minutes in their chosen activity. They were not allowed to change their mind or move to a different activity once they made their choice. This concept of workstation works very well as it allows each student to spend a length of time in their chosen area and develop attention, creative and problem solving skills. The teacher and teacher's assistant spent approximately 5 minutes with each child in the different areas. Each child knows that they are not allowed to interrupt the teacher's during his time with another child. If a child gets stuck with a problem, they need to come up with a solution by themselves. For example, one student picked the finger-painting activity. The teacher was with another student at the time. He could not take off the lid as it was stuck with dried paint. So he thought about it and decided to make a hole on the top of the lid. When the teacher realized what the student has done, he complimented the student for coming up with a solution and then gave him a new problem which is how to fix the hole so that the paint doesn't dry out when they are finished with it for the day. The student came up with glad wrap (cling film) and covered the lid before tying it up with a rubber band. A very innovative young man.

Layout of the room:



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Group 2:

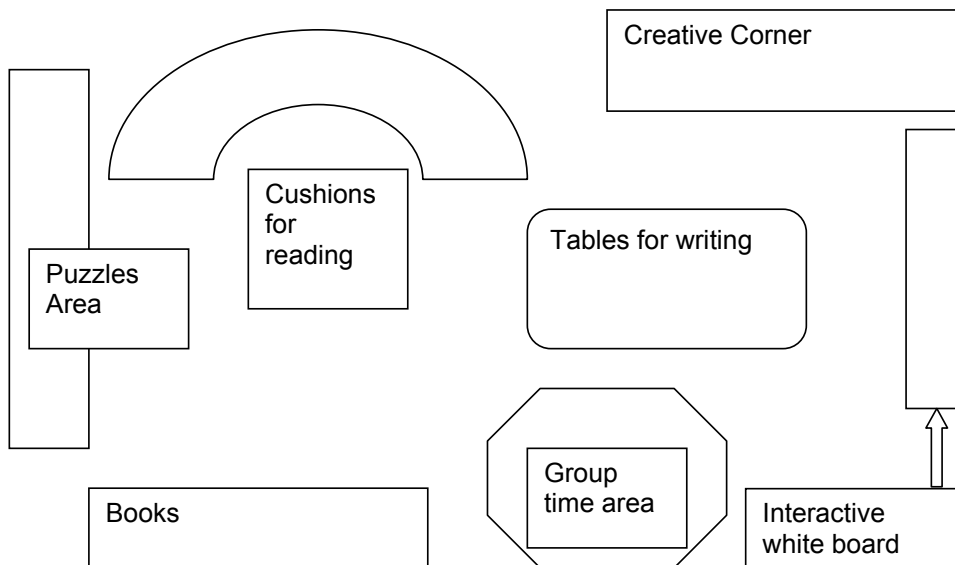
Notes from the visit to the classroom:

There were seven students at the time of the visit. The program for this class is a combination of Reggio Emilia philosophy and academic program with a large emphasis on language experiences using technology.

The program observed involved using various technologies to provide a language experience for the students in the class. The teacher/researcher took photos of the children creating a rocket during the previous week. She then downloaded the photos onto a PowerPoint. The classroom has an interactive whiteboard called 'Smartboard'. The teacher broadcast the PowerPoint using the Smartboard for the students to see and sign in ASL a story about each photo. The teacher would use the keyboard on the Smartboard to type in the stories into English. The aim of this activity is to create a story book about the rocket made in class.

The story book created was then printed and bounded for the class to read during story time. After story time, the students were then asked to write and/or draw something that represents the story book. This shows their level of understanding of the book and concept discussed in class about 'rockets'. This process is called dialogue journal writing.

As the program for this group is more language focused than group 1, the class is set up differently to engage the students in reading and writing.



Kindergarten – Integrated program.

Notes from the visit to the classroom:

At the time of the visit, there were six students in this group. Two of these students are hearing. At the Clerc Centre, there is a program for hearing children of deaf parents and/or teaching staff from either Kendall Elementary Demonstration School or Model Secondary School for the Deaf or Gallaudet University. The program runs from 3 to 6 years of age. The parents of these children can choose whether they want their child to participate in the early learning programs at Kendall.

The room is very well designed and this strongly reflects the strong influence of Reggio Emilia philosophy. The program also has a strong academic element which is why the class is named as an integrated program.

At the beginning of the school year, the students in this program brainstormed with their teachers what topics they would like to learn more about. They came up with three topics and put into a vote on which order. The results were:

1. Dinosaurs
2. Bats
3. Camping

Prior to my visit, the class has been working on the topic 'Dinosaurs'. In the classroom there were many positive learning experiences for the students that are related to the topic. For example:

- There were many books, posters and puzzles on dinosaurs and related themes.
- On one wall there was a list that the class created at the beginning of the topic:
 - K = Knowledge of what they already know about dinosaurs
 - W = Would like to know. Here there was a list of questions. E.g. What does a dinosaur eat? Where did they live? Why did they die?

With this list, the teachers use these as the base of their lessons.

- Information downloaded from the internet or copied from books is displayed around the room.
- Games using dinosaurs were available. These games were purchased from the National Geographic store.
- PowerPoint presentation with facts about dinosaurs. This presentation was created by the students with the teachers' assistance. There was a significant amount of research prior to creating the presentation. The students can ask the teachers to play this PowerPoint at any time.

- Building blocks with plastic dinosaurs and plants.
- Dialogue journals about dinosaurs. The students included photos of different learning activities during the two months of the study. They also wrote down any new information they have learnt. There was an entry in these journals about their visit to the local museum where there was a display of dinosaurs.
- Science corner: the students created volcanoes using clay models. During one of the earlier learning sessions, the students watched a short film and learnt that the dinosaurs died due to volcanoes. Therefore there was a natural progression towards the topic of volcanoes.
- Exploratory table: There was a table with different types of fossils. The students have used magnifying glasses for this activity and drew detailed diagrams of what they saw through their magnifying glasses.
- Imaginary play corner: there was a foam box filled with sand and plastic fossils of dinosaurs. The students were using little racks and spades and pretending that they were archeologists looking for fossils. This activity was set up after their visit to the local museum where they met an archeologist.

The classroom has their own 'meeting room' where the group sessions are held. As it will be the students' last year before starting a full academic program in first grade, the teachers includes academic activities that focuses on Mathematics and Language.

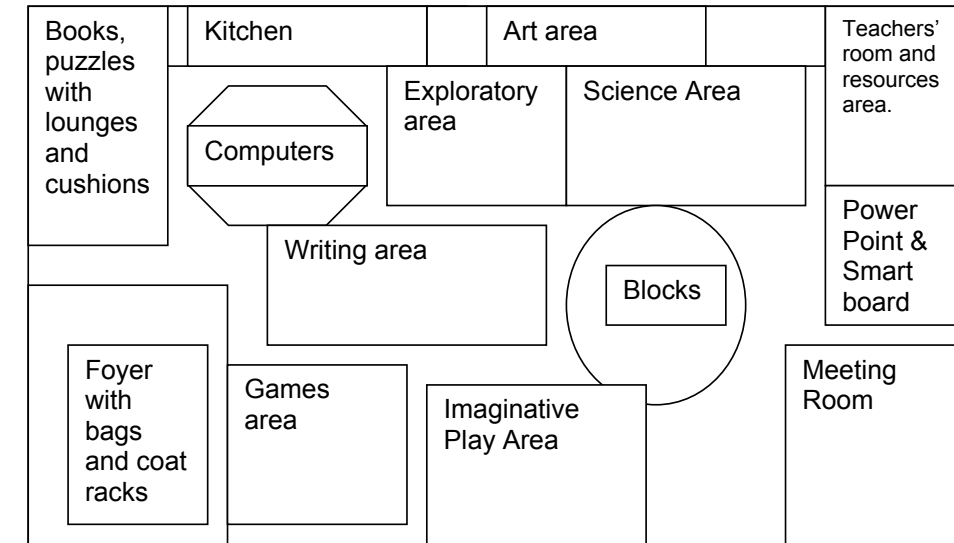
The teachers have set up a reward program as part of the academic program for Mathematics and Language. The program is called 'Count your Pennies'. One of the teachers has a large jar of pennies. The teachers give a child a specific token each time they demonstrate good learning behaviour. For example, if they see a child sharing, they give him/her a token for 5 pennies. The students keep their tokens until the next group session in the meeting room where they exchange the tokens for the actual pennies. At the end of each week, the students can shop at the 'Kindy Store'. The Kindy Store has different baskets of small items with clearly marked prices. For example: toy cars, hair ties, plastic snakes, small bouncing balls, etc.

At the time of the visit, the teachers explained to me that the topic 'Dinosaurs' will finish at the end of the week. This was a perfect opportunity to examine the students' work and ask them questions about what they know about dinosaurs. I was very impressed with the level of knowledge they had about dinosaurs. I also asked the students what they liked about coming to school and they all replied that they really like learning new information about things like dinosaurs, volcanoes and archaeology.

The students' artworks were impressive as they used a lot of details when drawing fossils. The teachers explained that this was a progressive learning activity which commenced at the start of the topic. Each time the students did a

drawing of the fossils, the teachers would put the day's date on it. It can be seen that the earlier drawings have very little details and the most recent drawings was full of details.

Layout of the room:



On all of the walls, there were displays/charts/lists posted.

Implementation of the above mentioned ideas in the RIDBC program:

At Royal Institute for Deaf and Blind Children there are currently two early learning programs for deaf students whom primary language is Auslan (Australian Sign Language):

- 1) The Roberta Reid Preschool is a bilingual preschool program for deaf and hearing children aged 2-5 years.
- 2) The Thomas Pattison School in 2007 currently has 2 junior primary classes. The students are aged from 5 – 8 years of age.

There will be information sharing session organised by the Renwick Centre, Royal Institute for Deaf and Blind Children to share these ideas with colleagues who works in the early learning programs mentioned above. After the session, consultations will be held to set up a trial program incorporating these ideas into the program. The program will be reviewed and revised at the end of Term 3, 2007.

2. Ideas using information technology to enhance current educational programs for deaf and hearing impaired students for all ages.

Programs/organizations visited regarding this topic:

- Kendall Elementary Demonstration School (KEDS), Gallaudet University, Washington D.C
- Model Secondary School of the Deaf (MSSD), Gallaudet University, Washington D.C
- Lied Technology and Early Childhood Center for Deafness, Omaha, Nebraska.
- Lexington School for the Deaf, Lexington, New York City.
- National Deaf Children Society, London.
- Blanche Neville School, Highgate.
- Derrick Wood School, Bromley. .
- Royal School for the Deaf, Exeter.
- Deafax, Reading University, Reading.
- Frank Barnes School, London.

Professionals associated with these programs:

Rosemary Stifter – Information Systems and Computer Support, KEDS
Lorna Williams – Educational Resource Officer, National Deaf Children Society
Dani Sive – Information Technology Teacher & Assistant to Head Teacher, Frank Barnes School
Louise Sutton – Head Teacher, Deaf unit at Derrick Woods School
Jonathan Farnhill – CEO, Royal School of the Deaf, Exeter
Ken Carter, Head of Deafax, Reading University
Julie Longson, Information Technology Coordinator, MSSD
Cathy Carlotta, Deputy CEO, Lied Technology and Early Childhood Center for Deafness
Kevin Williams, Evaluator, Educational Interpreters evaluation program, Lied Technology and Early Childhood Center for Deafness
Frank Dattolo, Science and Social Science Specialist Teacher, Lexington School of the Deaf
Nancy Berrigan, Literacy Coordinator, National Mission Project, Gallaudet University
Janne Harrelson, Manager, National Mission Project, Gallaudet University.

The Auslan programs at the Royal Institute for Deaf and Blind Children are keen to enhance the educational programs further through the use of technology. All of the programs observed in the U.K and U.S.A. are well resourced in the use of technology. Five out six schools observed has a *Smartboard*, an interactive whiteboard, in each of the classroom. Many of the classrooms have an access to a data projector for projection of text either in the classroom itself or shared

with two or more classrooms. Two schools observed has their own television channel where the students produced their own television program. The same schools also have televisions located throughout the school which broadcasts captioned news or current affair programs 24/7. Many of the programs in the States observed also have excellent video conferencing facilities which are used for professional development, information sharing, educational resources for families and online classes.

The use of technology particularly in the States was very impressive. I was also fortunate to see how technology was used to empower families to learn sign language and/or how to raise a deaf child particularly in isolated areas where there are limited access to appropriate resources or educational programs. In Omaha, I observed how the video conferencing facilities were used to train educational interpreters which led to the idea of using such facilities for professional development in Australia particularly since we have the situation where it is almost impossible to have regular contacts with the educators who works for the bilingual programs for deaf students across the country since it is time consuming and expensive.

There are several aspects to this topic and therefore each aspect will be discussed in details.

2a. Use of various technologies in the classrooms to promote and reinforce deaf children's literacy skills.

The programs observed during my study tour uses the following technologies to promote and reinforce deaf children's literacy skills:

- *Smartboard* – an interactive whiteboard where various software programs are installed on various topics and subjects.
- *Blackboard* – a software program which promotes information sharing between teachers and students. Teachers can post assessment and lessons on the blackboard.
- *Video conferencing* – there are various free internet programs which allows the students to visual chat online. The programs used by the Kendall Elementary Demonstration School and Model Secondary School for the Deaf are: Skype, MSN and AOL. Google also has a video sharing capacity which is also free. Google also has captioning capacity where students and teachers could caption various short video clips for free. The teachers at Kendall have been using this program to send videos of lessons to each other by email.
- *School's own website* - Kendall Elementary Demonstration School and Model Secondary School for the Deaf have their own website which includes a large number of video clips and work samples.
- *Own TV program* – Kendall have their own TV program titled WCN18 (Wild Cats News) as Gallaudet University have their own cable TV channel. All of the classes at Kendall take turn in producing a news program every week which is then broadcast on Channel 18 on the

school's video phones and televisions. This is an excellent program as it covers many aspects of the literacy program at Kendall.

- *Computer lab* – There is a lab where a large Smartboard is located. In the same lab, there are 12 laptops all connected to each other. Teachers book this room for interactive classroom activity. Rosemary Stifter who is the Technology teacher at Kendall often uses this room to train other teachers on various technologies. She explained that it was easier to demonstrate specific skills onto the large Smartboard and the teachers then have a go at it on their designated laptops. Rosemary also said that the lab is very popular with tutors who teach families American Sign Language (ASL).
- *Extensive video library* – As part of the Shared Reading program, 140 children's books were translated into ASL. These videos are also captioned so it shows both languages.
- *Global Virtual Classroom* – The vision of Global Virtual classroom is to empower, enable and connect students around the world using Internet technology. It aims to provide students the opportunity to develop three skills that are essential in the 21st century which are:
 - *Cross-cultural communication*
 - *Collaboration and*
 - *Computer skills*
- *Video Blogs* – Students submit video blogs on a weekly basis on determined topics set by their teachers. On these video blogs, the students are required to caption their videoed submissions using captioning software on their laptops.
- *Software programs including Inspirations, Smart Morph, Macromedia Flash and Dreamwaver, Blogger, Pics4learning.* These are some examples of the software used in the classrooms promoting the use of technology to enhance the literacy program.
- *Captioning software* – With digital captions, a software program that teachers in American school uses on CD-ROMs, DVDs and videos, users can change the caption format, including font style, size and color, and background color. More importantly, users can change the language in the captions themselves, which has proven very useful for the teachers. Digital captions may also be linked to other information, such as a glossary.
- *Powerpoint* – This is probably the most popular educational tool that teachers use to promote literacy development and language learning. During the trip, I have observed many examples of how teachers use this program for different age groups. An excellent example was when I visited the Kendall Elementary Demonstration School and the Kindergarten teacher has taken photos of the students the day before doing a science experiment posted them onto the PowerPoint. As a literacy activity, she asked each student to sign the sequence of the experiment in ASL (American Sign Language) about a particular

photograph and she would then type in the English translation and this becomes a storybook.

- *Document feeder* – At KEDS, MSSD, Lexington and LIED, each classroom has their own document feeder which is equipment which broadcast the text from a book onto a large screen. This enables the teacher to go through specific sections of the text in signed language without having to worry about holding the book up and signing at the same time. This is an excellent equipment to have for all literacy based activities where the students are exposed to the use of spoken language and signed language at the same time.
- *Televisions with captions* – It is the firm belief of the programs that I visited during the study tour that if the students are constantly exposed to everyday language through captioned videos/dvds and television programs, the students' vocabulary and understanding of language will increase. Therefore most schools I visited in America had televisions located throughout 'busy' areas of the schools with captioned news or current affairs programs.

All of these above-mentioned technologies are used by teachers or professional staff to encourage and promote literacy development and language learning in deaf or hearing impaired students. All of the staff I have spoken with could not stress enough how important it is to keep abreast of the current technological advancements and work out how to use these in the classroom.

2b. Use of videoconferencing facilities to provide support and programs for families of deaf and hearing impaired children.

Two programs observed in the States uses videoconferencing facilities to provide support and educational programs for families of deaf and hearing impaired children. Lied Technology and Early Childhood Center for Deafness and Gallaudet University National Mission Project both have implemented educational programs via videoconferencing to support families of deaf and hearing impaired children.

At LIED, the Center services the states of Nebraska, South Dakota, Iowa and Kansas. The boundary of service provided by LIED is geographically large and virtually impossible without the use of videoconferencing. In a way, the demand for service and programs from LIED, led to the need of setting up a state of the arts videoconferencing facilities in order to provide the necessary services and program to families who lives in the above-mentioned states.

LIED, through videoconferencing, provides

- 1) support to families in the learning of American Sign Language (ASL),

- 2) educational resources that enables parents to develop confidence in order to raise their deaf or hearing impaired child and
- 3) support to families how to teach their hearing impaired child auditory verbal skills such as speech and listening.

Evidently there is a large demand from families for these services for the following reasons:

- a) demographically families are isolated and in most cases will need to travel for a day to the nearest facilities for professional advice and/or support
- b) the quality of the programs provided by LIED is highly reputable and many families would like to access the services and support by the staff at LIED.
- c) there are no costing involved in accessing the services as it is fully funded by the state government.

The second program observed using the videoconferencing facilities to provide support and programs to families is the National Mission Project at Gallaudet University. The National Mission Project has three major aims:

- a) Literacy – to improve literacy for all deaf students
- b) Education for families – provision of support and programs for families of deaf and hearing impaired students
- c) Transition – in all areas i.e. Early Learning to Primary; Primary to Secondary School; Secondary School to college/work/life.

Janne Harrelson explained that providing education for families is challenging due to demographic reasons. One project that the project team is working on is the 'Shared Reading Program' which involves Deaf tutors visiting the families and teaching them how to read to their deaf/hearing impaired child. This program has been running since 2005 and has proven to be very successful in terms that the families are developing confidence with reading to their deaf child and becoming fluent in American Sign Language. At the same time, the families have developed friendships with their deaf tutors and there were often times where the families could ask the deaf tutors specific questions about how to raise their child in a bilingual environment.

In response to demands from families who lives outside Washington D.C. or in rural areas, Howard Seago, a trainer and actor, developed a Shared Reading Video Outreach program which services families across the country at the beginning of 2006. This program at the time of writing services over 120 families in America. This success clearly demonstrates the need for services such as this for families who lives in remote or rural areas which is not dissimilar to Australia.

2c. Use of videoconferencing facilities to teach deaf and hearing impaired students online specific subjects that are not available in their local schools.

During my visit to Royal School of the Deaf in Exeter, I was in contact with the local community schools/colleges that have a small population of deaf or hearing impaired students in the program whom are serviced by the Royal School of the Deaf in terms of provision of specialist staff to provide support for the deaf and hearing impaired students who attend these schools/colleges.

Due to lack of specialist staff that could provide deaf/hearing impaired students support in specific subject areas, the Royal School of the Deaf has set up an 'online' venue to enable students from various schools or colleges to access specific subjects such as Agricultural studies, Law and society, Economics and Accounting from their own classroom. These subjects mentioned were not available because of lack of interpreters or teachers who could teach these students. It was an innovative way of providing better access to specific subjects in a supportive environment.

There is certainly a need for such service in Australia where suitably subject qualified teachers who can teach deaf or hearing impaired students are a rarity.

2d. Use of videoconferencing facilities for professional development and training sessions for educators, support staff and educational interpreters. This includes opportunities for professionals to exchange information and ideas from one program to another regardless of distance.

One of the main frustrations expressed by my colleagues in deaf education is the expense of attending professional development programs and the lack of information sharing between professionals due to the vastness of the country. In the United States and England, I have observed how professionals have established professional development or training programs via video conferencing.

At the Royal School of the Deaf in Exeter, an online training program was set up to train community support workers across the country. This allows people who live in rural areas to get training via video conferencing before becoming qualified to work with deaf or hearing impaired students in schools or colleges in the area. Evaluations from this program indicates clearly that this is the most preferred method of training as it is available anywhere in the country and there is no need to travel long distances in order to get qualifications before working in schools. This program has a positive impact on deaf education as it means that there is a larger pool of qualified community support workers to work with deaf or hearing impaired students.

Another example of how video conferencing facilities enables professional development to occur anywhere is the evaluation program for sign language interpreters who works in educational settings which is based at Lied Technology and Early Childhood Center for Deafness.

The team at Lied Technology and Early Childhood Center for Deafness has worked collaboratively with Dr Brenda Schick who works at the University of Colorado. The program is funded by the U.S Department of Education's office of Special Education Programs. The aim of the program is to provide feedback to sign language interpreters who works in either elementary or secondary school programs anywhere in the States in order to improve the quality of interpreting.

The interpreter who enrolled in this program will be filmed live via video conferencing. There is a panel of assessors at LIED who observes the interpreter in action. After the session is completed, the assessors provide feedback to the interpreter according to the checklist developed. The responses from the interpreters about this program are positive. They have expressed how supportive they feel getting this feedback and receiving suggestions on how to improve. This naturally leads to better quality of interpreting in the classroom which will evidently means that the deaf children will benefit from this program.

2e. A global virtual classroom involving 3 partners schools where students exchanges work and interact online using video and written blogs.

Rosemary Stifter at Kendall Elementary Demonstration School of the Deaf has set a global virtual classroom along with two other schools, Waitomo Caves School in Waitomo Caves, New Zealand and Merton Elementary School in Cote St.Luc, Quebec, Canada. Global Virtual Classroom is a global team cooperation and website-building activity for students from 7 to 18 years of age anywhere in the world. Schools from around the world collaborate to build websites on specific topics. During my visit, the school was working on making a website on the topic of Backyard Animals.

This is an excellent program as it involves the students using various computer programs such as inspirations, smart morph, macromedia flash, moviemaker and blogs. All of these programs involve the students using their literacy, language and computer skills which are the main aim of the project.

Rosemary and I have discussed the possibility of setting up a global virtual classroom between Kendall Elementary Demonstration School, Thomas Pattison School and a program for deaf students in China developing a website on the topic of sign languages around the world.

CONCLUSIONS

The need for implementing 1) "Reggio Emilia" teaching philosophy in deaf education and 2) various technologies to support the educational programs for deaf and hearing impaired students in Australia is crucial. Ensuring that each deaf or hearing impaired child has access to appropriate educational program in a vast country like Australia is a challenge that many parents face due to demographical barriers. What I have observed in England and America indicates all possibilities to provide such programs to deaf or hearing impaired children and families who lives in rural areas. There are three common issues in this area that my esteemed colleagues in England and America have expressed:

- Lack of access to appropriate educational programs for deaf and hearing impaired students for various reasons such as lack of funding and resources or distance.
- Being able to keep up with the current technological advancements in this rapidly changing world in order to deliver and teach deaf or hearing impaired students the use of such technology.
- Lack of opportunity to 1) share information with colleagues in the area of deaf education or 2) access appropriate professional development/training programs for staff who works with deaf or hearing impaired students.

Use of Reggio Emilia philosophy in the early learning programs for deaf students aged 0 -9 years.

The study tour has allowed me to observe how the early learning programs at Kendall Elementary Demonstration School, Washington D.C and Washington Preschool, Omaha adopted the Italian "Reggio Emilia" teaching philosophy in deaf education. The Kendall Elementary Demonstration School first adopted this philosophy in their early learning programs in 1997. At the time, it was the first program to use this philosophy for deaf and hearing impaired children. The philosophy still exists at Kendall for children aged 6 months to 7 years of age.

This approach includes the idea of teachers as learners, where the importance is attributed to the internal and external environments and the use of long-term projects with small groups of children. The method also places emphasis on children using multiple means of expressions, or "symbolic languages," such as drawing, sculpture, movement, dramatic play, and writing.

In the classrooms, teachers are skilled observers of the children and therefore able to explore ways of expanding children's spontaneous activities. From observing the children, teachers can develop projects. The goal of a successful project is to create enough interest to challenge children's thinking and problem-solving skills and open up new ways to explore. The teachers are also considered as 'researchers' as they are the children's source for research.

Therefore the role of the teacher is to be a researcher, a documenter and a supporter of learning.

Documentation is considered central to the Reggio approach. Documentation communicates the life of the program to others visiting the program. It also provides opportunities for children to revisit the experience. Documentation is a process that involves observation, reflection, collaboration, interpretation, analysis, and is made a part of the classroom.

To adapt this philosophy into the Australian context, specifically to the Auslan programs at Royal Institute for Deaf and Blind Children that caters for children aged 0-8 years, there will be an in-service for staff who works with this age group and professional discussions prior to implementation of specific aspects of this philosophy.

Use of information technology to enhance current educational programs for deaf and hearing impaired students for all ages.

The following statement is from Kendall Elementary Demonstration School's departmental policy on technology in Education.

Technology in Education can empower deaf students.

This statement is relevant to this report as it clearly explains the rationale behind the quest for information on how we can use information technology to enhance current educational programs for deaf and hearing impaired students for any ages.

In this report, the various technologies used in deaf education were described. The list can be endless. The challenge for teachers of the deaf is to find the time to update themselves on the endless possibilities of using technology to empower their students. However, all of the colleagues that I have made contact with during this trip seen this as something that is inevitable. It is their firm belief that if we, as teachers of deaf students, do not uphold this responsibility then we will fail our job as teachers.

Here in Australia, we have the technological capacity to implement all of the technologies mentioned in this report. As Australian population is distributed unevenly across the country, we have an issue of deaf and hearing impaired students being isolated from appropriate educational programs and/or resources to allow them to learn language and develop literacy skills. By using technology as an access path for these students' learning, not only we have 'passed' our job but these students will be empowered to be an active and assertive member of this rapidly changing world.

RECOMMENDATIONS

From my observations and findings, I would like to implement the following innovative ideas over the next 18 months:

- setting up a global virtual classroom in partnership with two other deaf schools in U.S.A and China,
- using video conferencing to support and empower families of deaf and hearing impaired students,
- use of video conferencing for professional development, training or information sharing with other professionals in deaf education
- creating online courses for secondary students that was not accessible before,
- installing smartboard, an interactive whiteboard in all classrooms at Thomas Pattison School,
- setting up a virtual shared reading program for parents of deaf children anywhere in Australia,
- Looking into using the software program called *Blackboard* to allow information sharing between teachers and students.
- Developing Thomas Pattison School's own website to display students' work samples and information sharing with other programs in Australia. Attaching video blogs to this website will allow the students to communicate with students from other schools.
- Developing a TV program – to be broadcast in televisions that will be installed in the school's lobby.
- Looking at extending the school's video library – to provide students and their families with resources in both Auslan (Australian Sign Language) and English (by having videos/DVDs with captions).
- Exploring various captioning software to be used in the classrooms by teachers and students.
- Purchasing document feeder/readers for Thomas Pattison School to enables the teacher to go through specific sections of the text in signed language without having to worry about holding the book up and signing at the same time.
- Purchase of television with teletext (which broadcast captions on various free to air and cable television programs) to install in the school's lobby so that the students can watch news or current affairs programs.

All of these ideas will be developed and trialed during 2007 and early 2008. Modifications using ideas from observations of the "Reggio Emilia" approach used in deaf educational programs in the USA will also be trialed in the early learning programs for deaf students at the Royal Institute for Deaf and Blind children. Thomas Pattison School and Roberta Reid Preschool will be a model for professionals and students in deaf education to observe share and exchange ideas.