

RESEARCH QUESTION

How do we improve children's Oral language using Smartboard (Interactive Whiteboard)?

CONTEXT

Ingle Farm Kindergarten is part of the Salisbury district. It is a complex centre with approximately 125 children in the kindergarten and pre-entry program plus 70 children in occasional care. The centre is very diverse with 55 - 60% of the children being ESL, Aboriginal or having additional needs. The learning needs of the children are significant, especially language development.

Focus group

12 children. Of these 12 children, 2 left during the project.

Diverse group – 2 Aboriginal children

3 E.S.L children

4 children with speech and language needs

5 children with difficulties separating from parents on arrival

WHAT WE RESEARCHED

We looked at the children's oral language development through the use of the Smartboard.

WHY IS YOUR RESEARCH EDUCATIONALLY SIGNIFICANT?

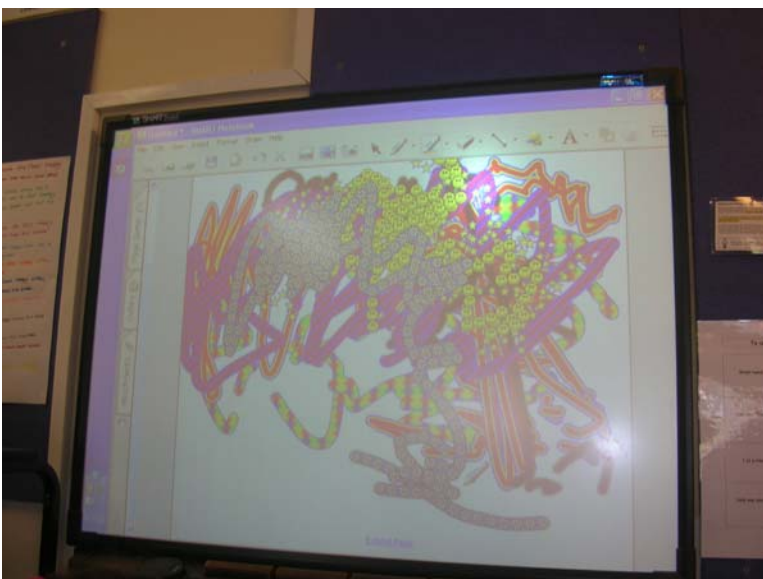
Having recently acquired a Smartboard and noting the children's interest and enthusiasm we were curious to see if it supported the children's oral language development.

With large group numbers the impact of the Smartboard in keeping the children's interest and focus.

We were also aware that we were the first early childhood centre to have a Smartboard and were keen to assess its value in a research manner.

HOW DID YOU GATHER YOUR DATA / EVIDENCE?

- through a variety of different tools
- observations, anecdotes, photos, videoing, oral language matrix, TROLL (Teacher Rating of Oral Language), staff comments, journaling



The children experimented with the Smartboard and tools

EXAMPLES OF THE DATA / EVIDENCE

Using the centre designed Oral Language Matrix children's baseline information was recorded at the commencement of the project and now term 1, 2007 – 2 to 2.5 terms later.

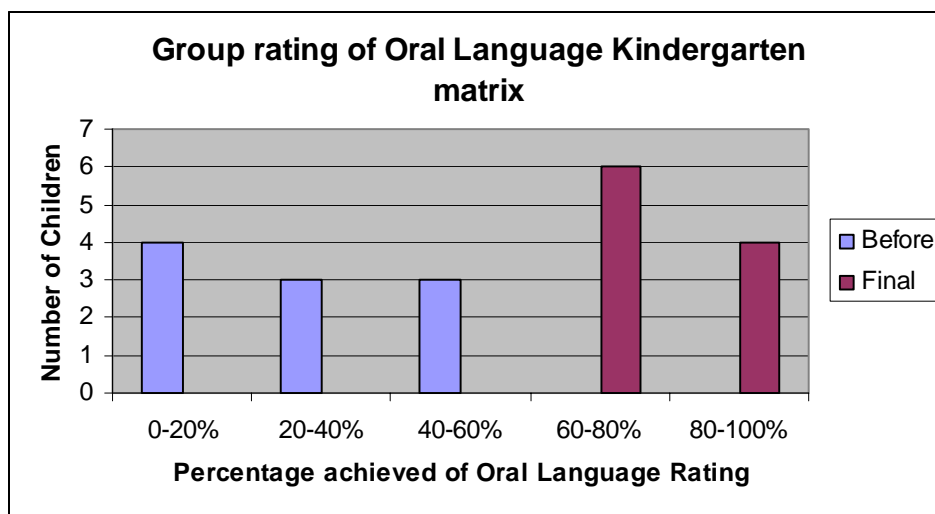
Examples

Troy

Initial Communication and Language Matrix - 4% achievement
 Final - 75 %
 Improvement - 71%

Jasmine

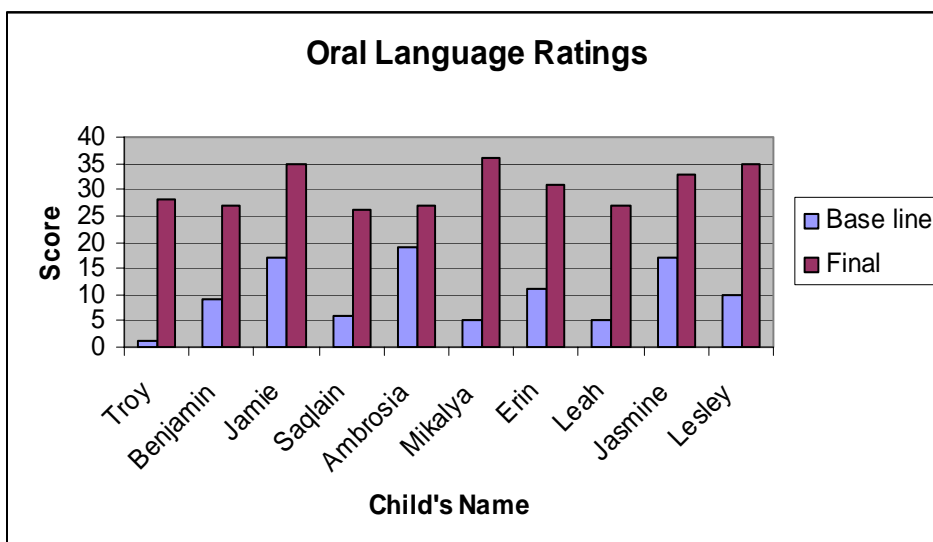
Initial Communication and Language Matrix 44 %
 Final 86%
 Improvement 42%



The above graph shows that none of the children completed more than 50% of the Kindergarten's Communication and Language Matrix initially. In fact 70% of the children scored less than 30% of the matrix.

Over the next 2 - 2.5 terms the children have all made significant progress with 50% of the children completing over 80% of the matrix. No child was less than 67%.

Overall gain was between 21% and 81% with the 6 children showing between 40% to 60% improvement.



As the project progressed the centres in the Salisbury district explored the TROLL (Teacher Rating of Oral Language) tool and we have now also used this to rate the children at the end of term 1, 2007.

HOW DID YOU INTERPRET YOUR DATA / EVIDENCE?

Anecdotes / Observations

From our early observations and anecdotes it was noted that the focus children were initially

- Using very little conversation. 80% of the focus group. e.g. initiating conversation to either peers or adults, recalling any personal experiences, asking enquiring questions, a lot of solitary play, no pretend play conversation, limited response to questions and if so level 1 to level 2.
- Scoring very low on the Kindergarten's Communication and Language Matrix - all less than 50%
- Having difficulty with separation on arrival at kindergarten
- Children who lacked in confidence, low self esteem
- At risk as identified by staff
- Asking if they could have a turn on the Smartboard and were requiring a lot of teacher help and direction

From our **Final** observations and anecdotes it was noted that the focus children were

- **All** using conversation from the focus group e.g. were initiating conversation with peers and adults, recalling any personal experiences, asking enquiring questions, a lot group social play, in depth pretend play conversation, response to questions- level 2- level 4.
- Scoring well on the Communication and Language Matrix - all above 70%.
- No longer having difficulty with separation on arrival at kindergarten.
- Children that have grown immensely in confidence and self esteem.
- Lower in number as identified by staff to be at risk. Only 2 children and at low risk now.
- Automatically going to the Smartboard and having turns and helping each other and making specific requests from the teacher.



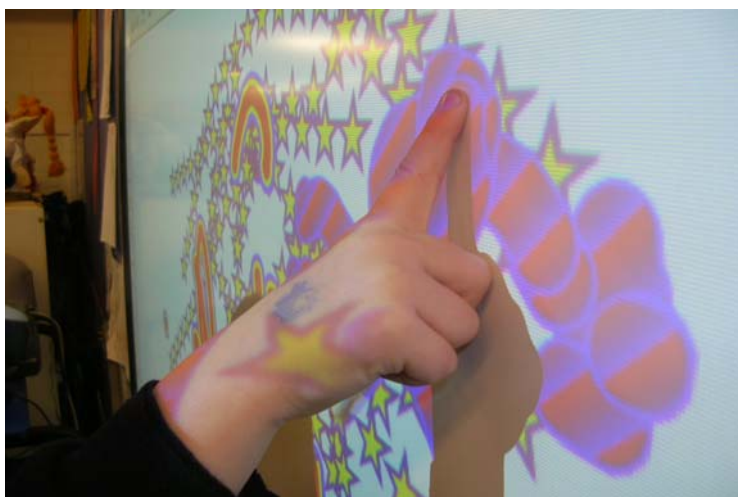
A child's photograph of a song, Slippery Fish that they had been using with others, manipulating the slides, sea creatures and singing together.

RESEARCH FINDINGS

How do we improve children's Oral language using Smartboard (Interactive Whiteboard)?

What did you find out?

- The focus group's oral language did improve significantly over the period of time as gauged on the centre's language and communication matrix. Likewise once the centre starting using the TROLL tool we have found similar results.
- As the children's confidence and self esteem increased so did their use and understanding of oral language.
- We definitely found the Smartboard was a valuable tool to increase the children's confidence.
- It was an experience where others could observe them, participate themselves, assist and help others later and show to the larger group their skills.
- Children were very proud to operate the Smartboard in a variety of different ways at group time when asked or volunteered
- The fact that the Smartboard is large had a huge visual impact on the children and others.
- The focus children were encouraged to use it if they did not initiate it themselves.
- Allowed lots of opportunities for the children to use it.
- Showed the children the tools, how to use it.
- Printed off some of their work.
- Provide songs, stories, puzzles for the children to access as well as opportunity to draw themselves.



WHAT CAN YOU CONCLUDE FROM THIS?

HOW HAS THIS RESEARCH CHANGED YOUR THEORY AND PRACTISE?

It has consolidated our early childhood theories and practises where children need time and be allowed to experiment and play within all learning experiences. Children and staff find the Smartboard and ICT exciting although also challenging for the staff.

At group time we are allowing the children to operate the Smartboard with the teachers consolidating the fact that children are not too young to use technology.

WHAT NEW QUESTIONS EMERGED FOR YOU AS A RESULT OF THIS RESEARCH?

- How do you ensure that all children have opportunities and confidence to access the Smartboard with the continual changing groups of children?
- How can we take its use to the next level with a greater use of Photo Story, e books with the children being involved?
- Are we really using ICT to further support their oral language?

RESOURCES

- Smartboard
- Camera
- Video Camera
- Staff made stories, songs and puzzles

REFERENCES

- Mapping Multi Literacies, Children of the New Millennium
- Teacher Rating of Oral Language and Literacy (TROLL) David K Dickinson, Allyssa McCabe, Kim Sprague -
- Dr. Carol Wesby "Language for Scientific Literacy"
- Preschool speech and language test DECS June 1998 (K. Maggs, M. O'Bryan, A. Russell)

PERSONAL REFLECTION

What could have been better?

- The general cohort of kindergarten children were exceptionally challenging with high behavioural needs which had an impact on our time, energy and resourcing plus enrolments going up. The complexity of the centre went from 45-50% ESL, Aboriginal or additional needs to 55-60%
- Finding an appropriate oral language tool to use as a valid measure was difficult initially.
- Would like to have taken even more anecdotes, photos, videoing etc.
- Making of more resources to use on the Smartboard.
- The sky's the limit!

What exceeded your expectations?

- The progress of the children.
- The children's growth in confidence and the assistance they gave each other, the fun and laughter.
- Willingness of the children to have a go themselves, with others and in front of the group.
- The language the children were using especially when explaining what they had done or helping others.
- The children's navigation of the computer. Going through processes to find different files - songs, stories.
- Children showing parents what to do on the Smartboard and keen to tell them what they had done – really proud of their achievements.
- Our ability to video and now learning editing etc (all time and confidence for ourselves).
- Staff confidence in using the Smartboard (if children can do it so can we!).
- We have also videoed the children showing their use of the Smartboard individually, with friends and in front of the whole group. They've really blossomed and we've had fun along with them.