

P9: AN ACTION RESEARCH STUDY INTO THE USE OF A DAILY BOARD

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Aims

- To investigate a digital solution to the problem of having my traditional whiteboard covered by a projector screen.
- To investigate how the solution – Daily Board – can be adapted to meet the needs of classes and individuals.

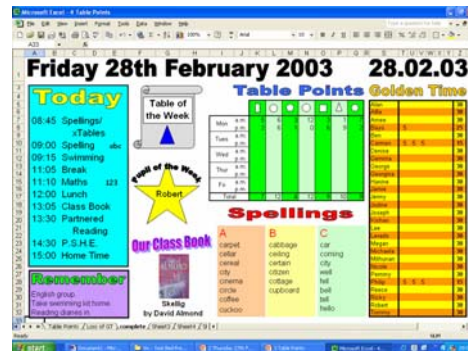
Background

I was in my second year of teaching year 5 at Warren Junior School when the Test Bed equipment was installed in my classroom in February 2003. A ceiling mounted digital projector, desk computer, visualiser¹, video player and amplifier were installed, along with a 6ft x 8ft screen which was positioned over the top of the traditional whiteboard.

I used my traditional whiteboard as a class information board. Around the edges of my traditional whiteboard was the schedule for the day, the date, a table points chart, reminders for me and the class, a note of who had lost golden time and how much the rest of the class had earned. The screen covered all of the traditional whiteboard, so for a time I tried raising and lowering the screen to shift between the two. However, the time it took (8 seconds) and the whirring noise led to a lapse in concentration and caused the children to become excited and distracted from their lesson. This behaviour led me to search for digital alternatives to the traditional whiteboard based information board.

Having experimented with presentation software and a word processor, I eventually decided to use a spreadsheet for the Daily Board design as it allowed me to utilise the mathematical functions of the software (for 'table points' and 'loss of golden time': two procedures for praising good work and managing behaviour).

In September 2003 I began to teach a year 3 class and wanted to continue to use Daily Board. I was aware that the board would need to be adapted to better meet the needs of a younger age group, and also to meet the specific needs of three children in my class who had statements of special educational needs (SEN).



5B's Daily Board

All of the children have been anonymised through the use of pseudonyms. This research is part of a larger MA study.

¹ A document camera or desktop visual presenter is an electronic imaging tool designed for presentations and video conferencing applications. It allows you to display documents and 3-D objects via a projector or monitor. (http://www.multimediacameras.co.uk/document_cameras_and_visualisers.htm last accessed on 22.06.04)

Expected Outcomes

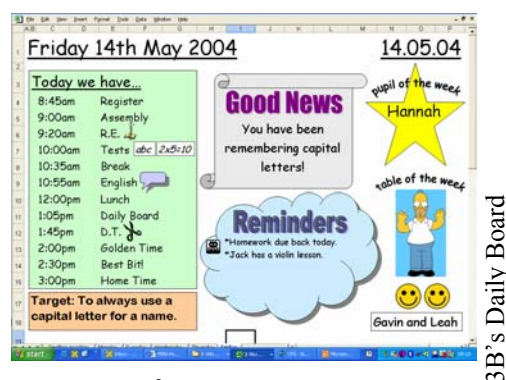
I expected my new Daily Board design to:

- A. appeal to younger children (by being simple, colourful and including pictures).
- B. enable Charlie (statement for learning and communication) and other children to access the material and improve their reading.
- C. enable Lara (statement for visual impairment) to access the material.
- D. enable Gary (statement for social and communication – autistic spectrum) and other children to feel settled because of clear and visual routines.

Data Collection

Research was carried out in the period January – May 2004.

- I kept a journal of events relating to Daily Board.
- I observed children looking at and reading from the Daily Board.
- I asked children in 3B and 6P (my class last year) to complete an open-ended questionnaire.
- 3B completed a multiple-choice survey using CPS zappers².
- I interviewed a selection of children from 3B and 6P.
- Staff completed a questionnaire.



Outcomes

- A. **The Daily Board is visually stimulating and appeals to younger children (by being simple, colourful and including pictures).**
 - First impressions of the Daily Board - and the Test Bed equipment in general - suggested that it appealed to the children. When asked in an interview about her first impressions of Daily Board, Louise, a year 3 child said that, "I thought it was really cool 'cause I didn't have one at home and it just made me jump 'cause it was so big!"
 - The change from traditional whiteboard to digital Daily Board was explained in interview by some of the year 6 students. Typical comments were that "it makes it more easier to see what you're doing in the day" (Jenny) and "it also helped us concentrate. When we saw that we knew that you were ready for the lesson" (Paul). The neatness of the presentation and clarity of the text ("because some adults have writing that children can't read" (Paul)) were also mentioned.
 - In the open-ended questionnaire, 85% of 3B stated that they like their Daily Board. 54% said they liked the lay-out, especially the pictures and colours.
 - The year 6 children were particularly good at recognising how the new (year 3) board was suitable for younger children. When interviewed, Paul commented that "I think for younger children it would be good, better, with lots of colours on it" while Georgina wrote in the open-ended questionnaire that "it's simple and little kids can understand it".
 - Both myself and some of my colleagues observed our students looking closely at the board, and the concentration of the students – especially at times of transition from one subject to another (due to fast hyperlinks) – improved.

² The Classroom Performance System (CPS) is an easy-to-use IR response system that obtains immediate feedback from every student. Students answer multiple-choice questions using individual response pads.
<http://www.einstruction.com/> last accessed on 26.07.04.

B. The Daily Board enabled Charlie (statement for learning and communication) and other children to access the material and improve their reading.

- The inclusion of pictures next to text enabled Charlie to recognise lessons in the schedule. In the multiple-choice survey using CPS zappers, 69% of 3B agreed that the pictures helped them to read the schedule although more than three quarters of the class said that they could read it without pictures.
- Daily reading from the Daily Board improved Charlie's sight vocabulary to include words which appeared consistently on the board.
- Again, in the CPS survey, 80% of 3B agreed that they enjoyed reading from the Daily Board and 42% of the class felt their reading had improved through this. Over 90% of the class said they could always or sometimes read the date, reminders and schedule. MR, a year 3 student, said in interview, *"I want to read. I like reading. I want to practise my reading... because you can read sometimes and some words might be hard for you like in the good news or reminders"*.
- More able readers have benefited from being reminded to use a loud, clear voice, including adverbs of time (which the children love to use when reading the schedule) and learning how to read the date.
- In the seven month period September 2003 – March 2004, the average increase in reading age (Salford tests) in 3B was 12.3 months. This was compared to a parallel class where the average increase was 9.7 months. Regular reading from the Daily Board certainly had a positive influence here although I also promoted reading at school and home in many other ways. Therefore, I am cautious to solely attribute the increase in reading ages to the Daily Board.
- 3 out of 14 of my colleagues also instigated daily group reading of the Daily Board which was perceived to contribute to improved reading skills.

C. The Daily Board enabled Lara (statement for visual impairment) to access the material.

- In interview, Lara stated that, *"I can see really clearly. [What have I done to make it so you can see clearly?] Got all the words bigger. And to get some of the pictures bigger so I can understand what some of them are like Geography is the globe"*.
- *"A big font, good contrast..."* were highlighted by Lara's mentor from the local blind school as being most important in supporting her visual impairment in the classroom.
- Generally, the use of Daily Board made the information clearer for all children. When asked about the advantages of Daily Board over a traditional whiteboard, Paul commented that *"it's better as well because some adults have writing that children can't read so on the computer everyone can read it"*.

D. The Daily Board enabled Gary (statement for social and communication – autistic spectrum) and other children to feel settled because of clear and visual routines:

- Gary's mentor from Barking and Dagenham explained that, *"excellent visual strategies are in place...his listening and attention skills were clearly supported by the wide range of visual prompts and the excellent use of ICT"*.
- Gary was blasé about the schedule and its importance to him, answering *no* to every related question in the CPS survey. However, I observed him looking carefully at the schedule each morning and reacting disruptively to any changes that occurred.
- A colleague with another autistic child commented that, *"it is a fantastic visual tool for my statemented pupil. He doesn't adapt well to change or surprises. The daily board provides a timetable for him that eliminates unnecessary disruptions"*.
- Generally, in the CPS survey, 89% of 3B agreed that they always or sometimes liked to know what they would be doing that day and that the Daily Board helped them with this.

Conclusions

Daily Board proved to be a very successful digital alternative to the traditional whiteboard. I found it to be a bright and appealing presentation of information which was made accessible to all students through the use of colour and images. The way it gave the students greater independence was recognised by most of the staff that used it. Hyperlinks made the speed of transition from one topic to another faster and this resulted in less disruptive behaviour in the classroom. The children enjoyed seeing motivational information on the board and some recognised that this helped them to behave better.

I feel that the adaptation of Daily Board that I used with my year 3 class achieved the expected outcomes by meeting the needs of the younger children as outlined above, and specifically by meeting the needs of the three children with statements of SEN (for visual impairment, learning and communications, and Asperger's syndrome).

Staff in Warren Junior School recognise that Daily Board is a useful tool and it is now used in 13 out of 16 classes. I would now like to encourage my colleagues to see its purpose as more than merely informing, and to encourage them to design their own boards with the needs of their children and the age of their class in mind. I would especially like to encourage teachers to include a daily group reading of the Daily Board as a chance to improve the basic reading skills of the lower ability children, and also to refine the skills of the more able children, as this is where I feel Daily Board has had the biggest impact in my classroom.

Other schools within the Barking and Dagenham Test Bed cluster (and elsewhere) have seen Daily Board in use and a template of the board has been shared with them. I do not yet know what ICT co-ordinators have done with the template when they have returned to their institutions. A future Action Research project could investigate how Daily Board is being used elsewhere and how it has been adapted in other schools to meet their needs.