P.33 An evaluation of the impact of I.C.T. on boys' attitudes to literacy in early foundation stage. A focused study on four learners

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Introduction

This work took place in a 26 place nursery unit attached to the Roman Catholic primary school. We are part of the national ICT Test Bed project, nearing the end of its third year at the time of the observations.

Background writing / ICT links

Children use the Interactive "Smart board" in many ways, but regularly have large scale writing activities, when they trace over the outline of letters which have been prepared by the teacher using Sassoon primary infant font in word art outline style(see foot of page). More recently, we have been using the Espresso foundation stage writing activities, watching video clips for letter formation, then stopping the screen which is intended as a template for writing in the air, and using that as a template for writing on the Smart board.

In both these activities, the letters are large enough to require gross motor movements to trace them. Sometimes the smallest children need assistance to reach the top of them.

In the almost two years since we have had a Smart board in the nursery classroom, it has been perceived by staff that boys were becoming more interested in literacy activities throughout the nursery, particularly in writing, which had previously been much more popular with girls than boys.

They enthusiastically volunteer to write on the board, and regularly have the opportunity to follow this up by completing A4 sized versions of the Smart Board screens on paper.

We have two PC's which the children also access, and have found that boys have been interested in using literacy activities on these, including having a blank page with the Sassoon primary infant font in 24pt so that they could write their names, using a big keys keyboard which has large lower case keys.

Sassoon Primary Infant font and letter outline style in WordArt

Parameters of research

It was decided to focus on four boys who attend during the afternoon session, and observe how they respond to literacy activities.

Backgrounds for focus group

J is a 4½ year old who is interested and well above average in ability in both reading and use of ICT. He has long been able to write his name using a keyboard, but was very reluctant to use traditional writing implements at first, finding them difficult to hold and control.

R is a 4 year old who enjoys active pursuits, particularly outside. He also enjoys the use of ICT, and can be contemptuous of anything he sees as "For girls."

F is almost 4, and takes an active interest in all areas of the nursery curriculum. He has good access to ICT at home.

L is 3½, and will not start reception class for over a year. He has been perceived by staff as keen to be involved in writing following introductions to it on the Smart board.

Planned activities

A series of observations on the focus group is planned, all involving literacy activities, some using ICT on laptops, which we have considered using as a way of increasing access to literacy through ICT

Expected outcomes

It is predicted that the observed group will choose to participate in writing activities, given free choice of a range of activities, and that they will be motivated to complete them to a high standard, particularly if ICT is involved in the work.

Observation 1.

Activity:

The boys were observed during an afternoon session, when there were many activities on offer. There was a letter formation activity which involved making a marble roll around letters to observe the correct formation, then trace over the outlines of a, c, d, g, o, and q, three times each. (This is not an ICT activity, but provides a useful reference point for considering their response to the subsequent ICT-related literacy activities.)

Response:

R and F volunteered to do the writing activity as their first one. They rolled the marble around the letter shapes, then wrote recognisable versions of their names before starting. R had started to do his upside down, because he had written his name before starting to look at the letters on the sheet, which he had obscured with the rol'n'write letters but when asked to start again, was happy to do so. He traced over all the letters, making correct formations on about half of them, competing with F, saying "I'm going to win!" and "I've nearly finished!" F traced over all the shapes, but still had lots of incorrect formations.

L asked to join in when someone left the table, and observed the formations carefully. He copied my mantra of "round, up and down", and most of the letters were traced correctly. He then wrote his name on the back.

J had been busy on other activities, but asked "Can I?" when I invited another boy to the table. He traced with correct formation over 17 letters, and wrote his name on the back.

Of the 7 children who came to the activity without needing to be invited, 6 were boys, but there are more boys in the group. (14 boys, 6 girls)

Discussion:

All the boys chose to come to the activity and each completed it. They did not all trace all the letters with the correct formation, but J and L effectively did, and F did 12/18. R concentrated less well, going for speed, but still controlled the pen and stuck to the letter shape.

All the boys labelled their work, with at least a recognisable version of their name. This shows a level of interest and a level of attainment in writing which we were not used to seeing from many boys before the Test Bed project.

Observation 2

Activity:

4 laptops had been set up to show a My World screen with letters of the alphabet in upper and lower case to click and drag. These were in Comic Sans, which does not correspond exactly to the Jolly Phonics script we learn. The laptops were known not to last long on battery, so they were started and logged on just as the children finished their introductory

activities. Children were invited to see if they could make their names, and if they wanted to stay, write other things.

Response:

L came to join in before logging on was completely finished, then F and R after a few minutes, then J when he had done a painting. All 4 volunteered in the first 10 minutes and were the first to come to the table.

All managed well with the laptop mouse pad, even though they had used a mouse (which is far easier to manipulate) when we had the laptops previously.

F, L and J all made their names, and then got out name cards from the box to make their friend's names. J made his brother's name independently. R made his name, and then started to write his surname. He needed me to write out his surname so he could find the letters. He had just located the final letter and was about to place it when the laptop battery died. R had spent a long time talking about and finding the letters, so this was very frustrating.

That laptop had lasted 30 minutes, and they had all failed by the end of 50 minutes.

Discussion:

The activity engaged all the boys at a high level of activity, enabling them all to work at word-making. They all stayed at the activity and took on the extension. They needed a little help with some letters such as y, which is very different in the two fonts. (y, y). Having to click and drag the letters was much slower than being able to type them directly on a keyboard, but they were prepared to persist with it, seeing the positioning of letters as part of the game. Only R suffered from the battery failure, but 3 children outside the focus group were similarly disappointed.

However, there was an annoying feature, (the wrong font on the My World screen) which nobody outside Early Years would even consider, and which I could possibly correct if I spent a good deal of my time investigating it.

Worse, because the laptop batteries started to fail after 30 minutes, the activity could not be sustained for as long as I would have liked, and children's work had to be abandoned, and others, who wanted a turn, disappointed.

In some ways this activity (Activity 2) showed the Test Bed project in microcosm. The activity was a good one in that it used the boys' skill and enthusiasm in ICT to allow them to operate at levels that they would have found it difficult to achieve using traditional pen and paper methods. Their success attracted others in their wake, as their friends saw what they were doing and came to discuss it, and ask "Can I have a go after you?" This combination of enthusiasm and achievement, coupled with slightly inappropriate material and infuriating equipment failure, has characterised the whole Test Bed project for me.

Observation 3

Activity:

Using laptops for typing with keyboard. This gave children the right font on screen (Sassoon Primary Infant in 24 pt), but upper case letters on the keys.

 Children were asked to write a list of things to take on holiday. There were 4 laptops, used in tandem so that 2 were in use and 2 in reserve, to try and maximize the battery life.

Response:

J spelled toys correctly, but had to ask for the t, as he couldn't find it because it was upper case. He spelled bol, (ball) Kat, (Katie) Finly, (Finlay) we, mea (me) I've put an a on , that

makes it mia. He went on to write loads of 3 letter words by himself, managing with upper case keyboard reasonably well.

F spelled out "car" phonetically but needed help to find letters because they were upper case, then lost confidence because he couldn't find the letters on his own.

L wanted to spell toys tes and spelled sand, giving Jolly Phonics actions, but needed the adult to show him where they were on the keyboard.

R wanted to come, but was not very keen because he couldn't find letters himself. He typed Tzs (trousers) tp (top)

Discussion:

The advantages of being able to type directly and having the right font on screen seemed to be outweighed by the disadvantage of the upper case keyboard, which was totally foreign to three of these emergent readers. (Try reading Greek or Russian script to see how they felt!) J managed because he is able to recognise some capital letters, but most children in nursery are still collecting or consolidating the lower case letter-sound matches. They were all able to produce some attempts at writing unknown words using their phonic knowledge, with the help of an adult and the ICT resources. This is working comfortably within the level of the Early Learning Goals, which none of them would have been able to do without the support built into the activity.

Interviews with focus group

Interview J

Q   Why did you choose to come and do this?

A   Because I know how to work it.

Q   What do you like about it?

A   I think it's exciting.

Q   Is there anything else you like about it?

A   I like to write my name

Interview L

Q   Why did you choose to come and do this?

A   Because I want to.

Q   What do you like about it?

A   Cos my mum don't let me put it on. I not got one like this.

Q   Is there anything else you like about it?

A   I like to spell my name.

Interview R

Q   Why did you choose to come and do this?

A   Because I wanted to. I want to write my name. I can write people's names.

Interview F

Q   Why did you choose to come and do this?

A   I'm trying to spell my name, and I done it backwards when we were spelling our names.

Q   What do you like about it?

A   It's my bestest thing. My dad's got one, he works on it. We play Fireman Sam, and my sister helps me playing with that.

Q   Is there anything else you like about it?

A   I like spelling my name, and doing my holiday thing.

Conclusions

The expected outcomes have been shown to be met in all the activities and from the interviews the boys seem to have a very positive attitude towards literacy through ICT.

The children are using the ICT as a means to "scaffold" their learning, so that they can operate at levels that they could not otherwise achieve. Traditionally, they would have to have developed the ability to form letters, to connect letters and sound, and to write for a purpose, all before attempting this sort of activity. The boys' background in ICT has made them interested and confident as writers, and the continuing use of it enables them to practise individual aspects while the technology supports the other aspects.

I would love to be able to have the children able to work more independently at activities like this, which they could achieve more easily with a 'big keys' keyboard. (They still have a slightly inappropriate font on the keys.) These can only practically be used with P.C.'s, which take up too much space to have more than two in our setting.

Using the laptops appears at the outset to be a sensible way of boosting ICT availability without further permanently compromising the space in the room. However, unless they could be customised in a way which would make them unsuitable for the KS1&2 pupils, their use is fairly limited for literacy in the nursery.

In view of their experiences noted above, the next steps for the boys included an activity which was embedded in the transport theme we had started. We had a garage scenario in the role play area, with lots of opportunities for science and imaginative play. As this had really fired the boys up, we had a literacy activity using a writing frame in word, which was a job card for the garage. Children worked alongside an adult who asked them what they wanted to write in each of the boxes and helped them to sound out the words which the children then typed using the Big Keys keyboard. The example in the appendix shows that our three year old is developing emergent writing and starting to link letters to sound s in words in a way that he is not doing in pencil and paper activities yet. (The asterisked words are what the writing is intended to say.)

Emerging principles

- Use of the Smart board in nursery, both as a teaching aid and for children to use independently, is valuable in engaging children's interest and developing their skills on a large scale, which is age-appropriate. The board should be placed low enough for small 3-year- olds to reach the top.
- Letting the children 'have a go' at a wide range of activities can produce good results. They usually master the technological skills fairly easily, but can be thwarted by technology which depends on literacy, e.g. a traditional keyboard.

- Use of ICT can help children to practice writing skills e.g. by producing readable results using typing, or by allowing templates for writing formation to be put on various types of screen. I.C.T can 'scaffold' the individual skill being practiced.
- ICT equipment takes up a considerable amount of space. This should not be taken away from the space in the nursery, but additional to it, as children cannot and should not use ICT instead of playing and having real experiences, but as well. Overcrowded classrooms have a negative impact on all learners, but space is particularly important in the Foundation stage classroom. If extra equipment is to be housed in classrooms, then the rooms will need to be bigger.
- Frustration and equipment failure are part of the ICT experience, and this becomes worse as systems become more complex. Teachers' skills need to be learned, and then repeatedly relearned as systems are changed. Procedures which used to be simple become more complex, or unavailable to staff as networks increase in complexity. E. g we used to be able to install CD roms, but are now dependent on a technician to do it, and I no longer can alter the brightness on my laptop if I want to work in my garden.

  However, enthusiasm such as that shown by the boys in their interviews, and seeing them able to practise skills at such a high level makes it worthwhile.

- As every Foundation stage practitioner knows, children need to be able to take on roles in their play, and we give them props to extend their play and make their roles as real as possible. For writing, the right ICT will give them the chance to act effectively as writers, and have this role embedded in the rest of their play. We don't need complex networks to do this, but we do need technology that works.

	Church Hill Garage Job Card
Customer name	Lewis
Vehicle make and model	m *motorbike
What is the fault?	m *broken
Date booked in	Smby *Sunday
Cost of repair	4