

No: P63
Title: Using the digital camera to support the language development of a child with autism.
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Background

Since beginning my teaching career as a reception teacher last September, I have found the digital camera a powerful tool in which to capture the achievements of the children, as well as to encourage them to self-evaluate. It has been with one pupil in particular where the camera has been a particularly invaluable tool to create visual resources to support his language development.

George is five, diagnosed as having an Autistic Spectrum Disorder and has 'expressive and receptive speech delay'. At the beginning of his year at reception, he was able to say some recognisable words but the majority of his speech was unrecognisable.

Initially, I inherited photos (taken by his previous support assistant the previous year) of George's family and following the suggestions of a recently produced speech program, created a book which involved matching and sorting the photos. As George worked on this book at his work station, the supporting adult would encourage him to say 'Mummy', 'Daddy' and his brother's name as he sorted them. Within a week of creating this book, George was responding appropriately with sounds such as 'ma', 'da...' and 'shhh..' (for his brother Shaun.) It immediately struck me that not only was this kind of resource a powerful tool to encourage and support George's language, but was also an activity he could manage independently at his workstation.

Shortly afterwards, I realised that making more of these language books could further enhance and encourage George's speech and language. It was also apparent that, like many children, George was particularly interested in seeing himself in photos. So, the next book I created was called 'George's activity book', whereby I captured him engrossed in a number of his favourite activities at that time, such as riding a bike and playing with cars. At the top of each page was the word for his support assistant or myself to model to him (e.g. 'Car', 'Bike') to encourage this language as he sorted and matched the photos. The digital camera provided a quick and powerful tool to capture and print these images and I had created a new resource in a matter of hours.

George knew the set up and expectations of this new book already so he immediately started to sort, match the photos and he was engrossed by seeing himself in the photos. Again, within a week of using the book on a daily basis, George was beginning to say sounds represented in the key words within the book. On reflection, I feel that this, in itself, also operates as a form of self-assessment on a level which is accessible for George.

The third book of this nature included relevant words to his day at school, such as 'book bag', 'name card', 'ball' (his favourite outdoor toy at the time), 'drink', 'house' (another favourite toy) and so on. This was similarly received by George and encouraged this vocabulary within a couple of weeks.

Of course, these books would have been just as possible to create with a standard as opposed to digital camera but there is no doubt the process of creating such a resource with a digital camera is cheaper, quicker and more efficient.

Introducing verbs – from still pictures to video

After reflecting on the sounds and words George was making during work on these photo books, it is then that I looked at the 100 key word sheet provided within his language program by the speech therapist. Obviously, this acts as a guide as opposed to a 'bible' of early words that could be targeted, but I noticed there was a lack of input and support for George to say verbs, such as 'eat' 'kick' 'walk' etc, yet these were of equal importance to his development and understanding. At first, I wondered how these could be captured as a still image and after speaking to the language support co-ordinator was made aware of standard images produced for these key words. However, I wondered what impact these images would have on George. Would he be more interested in who the child was in the picture, as opposed to what they were doing? The most interesting thing to George was, 'George' (besides Bob The Builder that is!) The most apparent thing to me was that a still image could not encapsulate a verb quite like a moving image, and with that I realised that using the 'video' setting on the digital camera was perhaps the best way to capture George spontaneously 'doing' things.

So, both his support assistant at the time and I used the video setting to capture George spontaneously during his play, e.g. kicking the ball to his friend in the garden, catching the bubbles in the garden, eating his lunch. Immediately, we were able to download these short clips of George and allow him to watch them, as part of his daily work-station time (which is often followed by a 10 minute session on the computer.) George was mesmerised by these images and he immediately began babbling away as he watched himself. (See assessment notes). In fact, within two weeks, George was demanding that his support assistant or I load up his video footage. He even managed to independently select different video clips to view (a skill I had never seen him demonstrate before.) The focus was then towards modelling words, as he watched his video intently, such as 'blow bubbles', 'eat lunch', 'kick ball'. By implementing these video sessions into a daily routine, the language could be reinforced by the supporting adult, and alongside this, George was self-assessing.

Attempting to evaluate the effectiveness of this intervention

Of course, it is difficult to measure the exact effect that these visual resources alone have had. On reflection, and through studying his word-bank (listed at the end), it was clear that the photo-books, in conjunction with his support assistant's input, had clearly proven to increase his vocabulary. In fact, a quarter of his spoken words are seen to have been reinforced through this type of resource.

The video footage has also encouraged George to say a few new words, one of which is the verb 'kick'. Improving his verb vocabulary remains an ongoing target for George. An additional outcome of using the video footage is that George's concentration has improved, up to 30 minutes session in one instance. He has also been motivated enough to explore how he could view them again, (which he eventually achieved by independently clicking on the correct icon, the kind of mouse skills he had never demonstrated before.) In fact, this increased confidence and competence in both using the mouse, and being able to independently select his choice of activity on the computer extended into logging on and off of '2Simple City', another favourite computer activity of his!

In his most recent review, George's mother, his new support assistant (who will be working with him into Year One) the SENCO and myself discussed where George's language development could go from here. It was agreed that more photo books could be used, (in fact his mother may take some photos of his

favourite toys at home, and was also enthusiastic about capturing George on her own digital camera), therefore providing a wider set of visual stimuli for him. Not only, does this set to strengthen the school-home link but it also focuses on the importance of George's world being a key motivation to his language development. Of course, in terms of George's further development, photos could offer an accessible means for him to be more independent in choosing his own activities.

In conclusion, I feel that these digital resources act as one form of support to George's language needs and without a doubt, the digital camera allows these to be produced easily and quickly. The language modelled by the supporting adult cannot be underestimated as the most important and spontaneous form of language support for George. However, the photo books and video resources have encouraged George to work independently at his workstation, increased his attention beyond that of many other activities, encouraged his competence using the computer, and reinforced the language that is primarily important to George.

Assessments: (taken from support assistant notes)

In relation to the photo book resources....

6.1.06 George's activity book – said 'shop' clearly and sorted all photos correctly without help. Said 'bi' for 'bike'.

9.3.06 George did this without help. Said 'George's picture' when he saw himself, said 'mama', then said 'mum'.

27.3.06 George sorted the pictures and said 'chair', 'book bag' and 'house'.

30.3.06 George said 'house', 'name', 'oll' (doll), and 'book bag'. Said 'finished'.

19.5.06 George matched all of the pictures in his book. He also said 'house', 'doll', 'chair', 'pencil' and 'book bag'.

In relation to the Video footage..

22.3.06 George sat beautifully and watched the video clip of himself playing with a ball in the garden. He said 'ball' and 'kick'. He really enjoyed watching himself on screen.

18.5.06 I showed George video clips of himself. He loved it and never took his eyes off the screen. He smiled all the way through.

24.5.06 George got his video clips working by himself! He enjoys looking at himself on the screen.

6.6.06 George can now choose a programme by himself with very little help and has learned how to use some of the keys and the mouse.

George's word list (Noted throughout his year in Reception)

1. aa-ow (apple)
2. a-ow (hello)
3. Babbit (rabbit)
4. Bin
5. Bookbag (Photobook)
6. bye!
7. Bi (bike) (Photobook)
8. Ball (Photobook/video resource)
9. Bath
10. bee
11. blue
12. Bob Buil-er (Photo)
13. Boat
14. box
15. Blue
16. Bubble (Video resource)
17. car
18. cat
19. Chair (Photobook)
20. Drink (Photobook)
21. 'oll (doll) (Photobook)
22. daddy (Photobook)
23. dada (daddy) (Photobook)
24. Eysh (eyes)
25. Eahhh (ear)
26. goo-ah-er-noo (good afternoon)- at register time
27. Gree (green)
28. George picture
29. hat
30. horse
31. hoo' (hoop) (Photobook)
32. house (Photobook)
33. ish-cree (ice-cream)
34. 'I nee toileh' (I need the toilet)
35. 'ish (fish)
36. inish (finish)
37. Jac-it- (Jacket)
38. Kick (Video resource)
39. Mine
40. mama
41. mummy (Photobook)
42. No
43. Orin (orange)
44. Peese (please)
45. pig
46. See ya la-er
47. Shoes
48. Shoelace
49. She-saw (see-saw) (Photobook)
50. shhh (shaun-brother) (Photobook)
51. spoo (spoon) (Photobook)
52. Sho (shop) (Photobook)
53. So-ee (sorry)

54. Socks
55. Squee (squeeze)
56. sticker
57. Ti-ee up ti (Tidy up time)
58. trac (tractor)
59. toileh (toilet)
60. Wa-er (water)
61. Ziiih (zip)