

A Sure Start with Books

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Abstract

The final stage of Bookstart longitudinal studies takes a random sample of 43 pupils who had been given Bookstart packs at the age of nine months. This group is matched with a comparison group, selected on strict criteria, and the performances of both groups in their Key Stage 1 SATS is compared. On both teacher assessment measures and test results the Bookstart group are ahead of the comparison group to a significant degree. Thus the research corroborates previous Bookstart studies and those which show that children who have a head start at school age remain ahead as their primary education continues. The implication is that book-gifting and advice to parents, when babies are about nine months of age, is a cost effective way of raising standards.

1. INTRODUCTION

This follow up study focuses on children's early development in literacy. It is well known that early contacts with people and objects in the environment are important for educational development and in Section 3 we review the specific contribution made by book-sharing. In Section 4 we briefly summarise knowledge about the Bookstart project in Britain since its inception in Birmingham in 1992.

The crux of this paper is a report of a follow-up study of a sample of the original Bookstart families whose children started school in 1997. With a programme such as Bookstart, which has a feel-good-factor attached to it because everyone likes the idea of receiving free books, it is important to provide evidence of its long-term effectiveness. This paper compares the results at their Key Stage 1 SATS stage of a sample of Bookstart children compared with a matched control group. First however, in Section 2 we reiterate the importance of early parental involvement in learning.

2. PARENT-CHILD INTERACTION

It is well known that young babies are not passive organisms, but learn actively through explanation and action. Adults are key players in this process, because children learn from the company they keep and rely on adults to provide new and varied experiences for learning to take place (Piaget, 1952, 1954). The quality of these early learning experiences is paramount for they need to be relatively stress free, democratic and warm. Turn-taking and role-sharing are important even in the first year of life as can be witnessed by early adult/baby 'conversations' and it is an advantage if adults do not always dominate these interactions (Bronfenbrenner, 1979). The potential of very young babies to learn through imitation, discrimination responsiveness and reciprocal behaviour has been demonstrated by other researchers (eg, Ainsworth and Bell; 1970, Richards, 1974; Appleton *et al*, 1975; Bower, 1979). What we know about interaction in conversation applies just as much to early book-sharing where there is an enjoyable and motivating source for conversation and learning to take place.

3. BOOKS IN INFANCY

The involvement of parents and carers in early learning through books has been well documented and researchers have shown how the advent of literacy depends on adults showing children how books work. We now know that the early years are crucial for laying the foundations of literacy (Bryant and Bradley, 1985; Bryce Heath, 1989; Hannon and James, 1990) and specific studies have shown the value of sharing books and stories (Wade, 1984; Wells, 1985; Toomey, 1993). Other studies (eg Wells, 1986; Butler, 1988; Juel, 1988; Bus *et al*, 1985) demonstrated that children achieved better in later education at school when they had been given a sure start with books in their early years. Certainly, the Bookstart experiment in Birmingham in 1992 produced results indicating the importance of introducing books to babies at about nine months of age and this background will be summarised in the next section.

4. BOOKSTART RESEARCH

The Birmingham experiment involved giving free children's books, posters, poem cards, information about library facilities etc. to approximately 300 families whose children had their nine-month health check in South Birmingham Health District. Initial questionnaire enquiries showed that this group produced positive attitudes towards books, increased book purchasing, library enrolments and book club membership. Parents of this group also said that they spent more time sharing books with their babies than they would have done had they not had the pack (Wade & Moore, 1993).

This early potential of the Bookstart project led to a longitudinal study of these families and specifically of achievements of the Bookstart babies. The first stage of this occurred when children were 2½-3 years old. A random sample consisting of 29 of the original families was compared with an equivalent sample provided by the Health Authority. This comparison group matched the Bookstart group in all important features, but structured interviews showed that the Bookstart families gave considerably higher priority to books, visited libraries more and spent more time sharing books with their child (Wade & Moore, 1996a). The crucial point about these findings was that it appeared that intervention at nine months of age produced continuing habits within the home and that repetitive book-sharing experiences seemed to be benefiting the children. For example, observations of book-sharing sessions within the home demonstrated that Bookstart children concentrated more and

showed more interest in books, pointed to text more and tried to turn pages more than did the comparison group. Further, their interactive, oral behaviour differed substantially, for they joined in more with the reading, asked and answered more questions and made more predictions than did the comparison group (Wade & Moore, 1996b).

Following these positive indications, a further enquiry was made with the co-operation with Birmingham Education Authority when the Bookstart children started school. Again a random sample was selected, this time of 41 children and matched with a comparison group selected by applying criteria from the Birmingham Baseline Assessment (Birmingham City Council, 1996). Baseline Assessment is made by staff involved in children's reception classrooms once they have settled down in school. It produces three assessments in English and three in Mathematics. Results in English showed that the Bookstart children were ahead in all three scores and that the difference in Reading was highly significant. Similarly, in Mathematics, the Bookstart children were ahead in all three areas, but in Number a highly significant difference was recorded (Wade & Moore, 1998).

It seemed likely therefore, that an early start with books, together with the repetitive practice in a one to one situation in the early years had affirmed the superiority of the Bookstart group compared with a similar group who had not had the advantages of an early book-gifting scheme. Further, the crucial role that parents and carers play in developing their children's abilities had been underlined.

At this point in the enquiry we returned to the research evidence of writers such as Wells (1986), Butler (1988), Juel (1988) and Bus *et al.* (1985). In summary, these researchers argue that those children who begin school with an advantage, maintain the difference as their primary education continues. The intriguing point about this evidence is that, Bookstart is shown to be an extremely cost-effective as well as an efficient way of producing not only higher standards in literacy, but also higher standards across the curriculum.

The research that we report in the remainder of this paper is the final stage of the longitudinal enquiry in that it investigates progress of the original Bookstart cohort at the end of their infants school careers and uses the National Scheme of assessment and testing (SATs) which checks progress at the end of Key Stage 1.

5. KEY STAGE 1 ACHIEVEMENTS OF BOOKSTART CHILDREN

Procedure

It is well known that longitudinal studies suffer from attrition and, certainly, at this final stage of enquiry it emerged that even more families had moved house or were otherwise untraceable than in the research reported in Section 4 and a significant proportion of children had moved schools. It would have been difficult to complete this research without the generous support of Birmingham Education authority and particularly of Assessment, Recording and Reporting staff in their Assessment Unit who were invaluable in tracing specific children to their schools and in selecting comparison group children.

A group of 41 subjects, satisfactory for research and comparison of this kind, was obtained and matched with children in the same classes on the following criteria:

- gender;
- home language;
- ethnic group;
- nursery experience;
- date of birth

| Group | Bookstart | Comparison |
|--------------------------------|--------------------|--------------------|
| Mean age | 7 years 5.1 months | 7 years 5.9 months |
| Number of males | 22 | 22 |
| Number of females | 21 | 21 |
| % on free school meals | 39.5% | 34.9% |
| % of special educational needs | 4.7% | 4.7% |
| % with nursery experience | 55.80% | 58.10% |

Table 5.1: Composition of groups

Tables 5.1 and 5.2 show how the two groups compare and also give information about free school meals and special educational needs where there was no significant difference between groups. Table 5.2, which shows differences between the groups

on ethnic and home language features has no significant difference either, but the most interesting feature in this table is that there is very little difference between these groups' percentages and those for the City of Birmingham as a whole. In this respect therefore the groups can be regarded as fairly representative of the City.

Ethnic Group

| | Bookstart | Comparison | Birmingham |
|-----------|-----------|------------|------------|
| Afr/Car | 7.0% | 7.0% | 6.1% |
| Indian | 7.0% | 9.3% | 5.7% |
| Pakistani | 16.3% | 16.3% | 17.4% |
| White | 62.8% | 62.8% | 59.0% |
| Mixed | 7.0% | 4.7% | 5.7% |

Home Language

| | Bookstart | Comparison | Birmingham |
|---------|-----------|------------|------------|
| English | 76.7% | 76.7% | 71.9% |
| Panjabi | 11.6% | 11.6% | 10.9% |
| Pushtu | 2.3% | 2.3% | 1.3% |
| Urdu | 9.3% | 9.3% | 8.5% |

Table 5.2: Ethnic group and home language percentages

Results

The Key Stage 1 SATS results include 10 teacher assessments: 3 in English; 3 in Mathematics; and 4 in Science. Mean scores for each group show that the Bookstart group was superior on each of these assessments, although levels of significance varied. Two of the Science scores and one of the Mathematics showed no significant difference, but all other scores were significant at either the 5% or 1% level and the teacher assessment for Reading showed a 0.1%, or very highly significant difference. These results are summarised in Table 5.3 where the first three columns record the mean differences in teacher assessments for all English scores totalled (TAEngTot), all Mathematics scores totalled (TAMathsTot) and the total of all Science scores (TAScTot). The difference between the English total scores is highly significant at the 1% level, while differences between Mathematics and Science totals are significant at the 5% level.

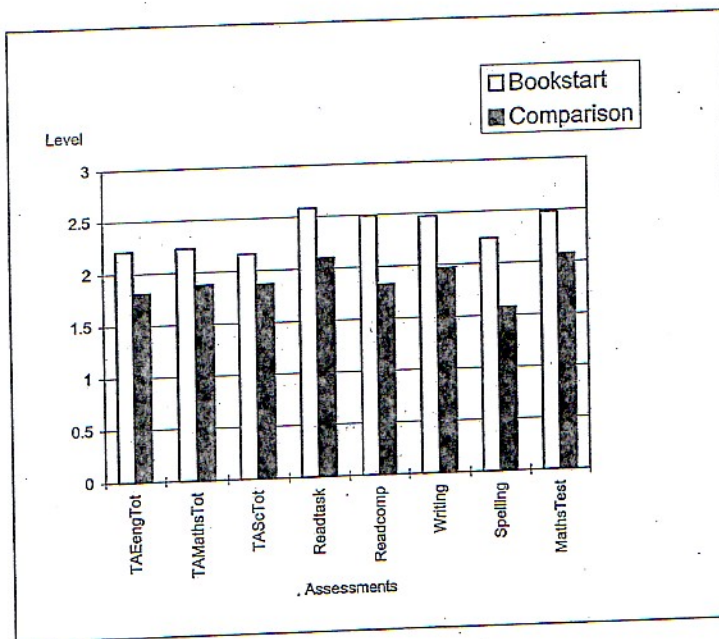


Table 5.3: SATS scores at Key Stage 1, the groups compared

Table 5.3 also records scores on the test elements of SATS. Children take a reading task and a Reading comprehension, a test of Writing, one of Spelling and, finally, a

Mathematics test. Interestingly, the differences in scores on all the test items show the superiority of the Bookstart group and all the differences are highly significant at the 1% level or better. So, while teachers in their assessments placed Bookstart children higher in achievement than the comparison group (NB teachers had no idea which children were in which group), the differences were even more marked in the five test results at the end of this Key Stage. In summary, the Bookstart group who started school with an advantage according to baseline scores, had maintained this advantage throughout their primary education to the end of Key Stage 1.

Discussion

The findings reported in Section 5 are consistent in showing the superiority of the Bookstart group in all elements of assessment at the end of Key Stage 1. Their superiority is more pronounced in the five tests which make up the objective element of SATS assessment. The implication of these findings is that the Bookstart group, which had received free children's books in infancy, had not only been better prepared for starting school, but have maintained their superiority throughout their first years of primary education. This conclusion is consistent with previous studies (Wade & Moore, 1996a; 1996b; Moore & Wade, 1997) which indicated that Bookstart children in their early years gained more experience with books through active book-sharing with parents and carers and had learned to focus and concentrate better than their contemporaries who had not received the Bookstart pack. It is also consistent with the baseline findings (Wade & Moore, 1998) which showed that the Bookstart sample was further ahead in both English and Mathematics than a comparison group.

Taken as a whole, these findings affirm the central role that parents and carers have to play in educating children in the pre-school years and thus corroborate research referred to in sections 2 and 3 above.

Section 3 above referred to evidence (Wells, 1986; Butler, 1988; Juel, 1988; Bus *et al.*, 1985) indicating that those children who achieve highly when they start school maintain this position, in relation to their peer group, as their primary education continues. The Bookstart group produced higher scores on baseline assessments and several years later higher scores on SATS assessments, thus corroborating previous

research. The implication is that Bookstart is a cost-effective way of ensuring a sure start at school and continuing higher standards through the primary years .

The evidence taken at both periods (ie. Baseline and Key Stage 1 SATS) shows the Bookstart group superior not only in English skills, but also in Mathematics and, to a slightly lesser extent, in Science. This is a matter which requires continuing investigation. The possibility exists that books, which contain counting games and rhymes (*One, two, buckle my shoe. Three, four, knock at the door...*) and shared during the early years, make later learning of number more effective. However, it is also likely that the attention and concentration that we have noticed in early book-sharing is in itself a key learning achievement which children later can transfer to other subject areas. A fascinating corroboration for this argument is provided by Rowe (1995) who investigated socio-economic variables in a longitudinal study of 5,092 students in Australian primary schools. His conclusion was that attainment was influenced much less by socio-economic factors than by reading at home. Rowe's argument was that reading at home produced attentiveness in pre-school children and, secondly, this attentiveness was an important predictor of reading achievement at school. Again, this is an issue worth further investigation.

6. CONCLUSION

Using a different random sample from previous research, evidence taken from SATS results at the end of Key Stage 1 showed that a group of children who had received a Bookstart pack in infancy consistently achieved scores superior to a carefully matched comparison group. This finding is consistent with previous research on Bookstart, with findings on attentiveness and studies which show that children who are ahead when they start school maintain the gap between themselves and their school fellows as primary education continues. This finding reinforces the potential of Bookstart to make significant contributions to raising standards, not only in literacy, but also across the curriculum. It remains to find out if these very positive indications are reinforced by evidence from larger samples in different contexts. In Britain, at least, Bookstart is becoming a national project and we are getting closer to the right of every child to receive the motivation of a free book in early childhood. It is important that local and national organisations continue to provide encouragement and support for parents. It is also important that practical and non-patronising materials are made available to Health Visitors, libraries and parents. We have made a beginning with *Baby Power* (Wade & Moore, 2000), but much more needs to be

done practically, not least in encouraging the production of high quality books for babies.

Thus the Bookstart project which has provided a useful model for different agencies, such as Health, Education, Social Services and Libraries, to work together and effect change also illustrates how research and good practice can interact to benefit families and raise standards.

Acknowledgement

We are pleased to acknowledge the Esmée Fairbairn Charitable Trust's support for this research.

Word count 2,894

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