A longitudinal study investigated some of the home and school influences on the writing development of 20 children. Data collected in all three phases of the research included measures of preschool oral language development, transcripts and interviews concerning parental and child interest in literacy, classroom observations of primary schooling, tests results, and writing evaluations. Subjects' writing at age 5 was scored according to language level, message quality, and directional principles; at age 7, in accordance with the journalistic features of who, what, when, where, how, and why; and at age 9, holistically. These qualitative measures were submitted to a correlation analysis along with the other measures. None of the measures for oral language correlated significantly with the writing quality measures. The study of writing progress indicated that those parents who were providing experiences relevant to literacy development during the preschool years had a lasting effect. The observed teacher characteristics positively related to progress during the three stages of writing development were those related to the conventions of written representation of language and those related to the content of children's compositions. In an index of scores for good and poor homes and good and poor schools, it appeared that the differences between the contributions of the homes were far greater than those between schools, emphasizing the influence of home literacy experiences. (HTH)

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Influences on Children's Writing 5-9 years

Paper presented at UKRA Conference, Newcastle
July 1982

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Bridie Raban
University of Reading
School of Education
Investigations of the influences on children's reading ability are numerous, with over fifty being reported in the most recent annual summary investigations relating to reading (Weintraub et al, 1982). However, with respect to young children's writing development very few studies are being conducted and even fewer have been completed (Bentley and Goodacre, 1982). This discrepancy between reading and writing research could be due to one of two reasons, firstly that writing, when viewed as 'speech made permanent', provides the learner with no real difficulties other than the problems of transcription during the early stages or secondly, learning to write has limited social, cognitive or linguistic significance in comparison with learning to read.

These two points of view are beginning to be modified in response to more recent theoretical speculations (Olson, 1977 and 1982) and empirical studies (Clay, 1975; Graves, 1975; Kress, 1982). A further major influence on the lack of research into children's writing development may be the difficulties of investigating the processes as opposed to the products of writing behaviour. This is particularly the case with very young children although the studies referred to above are providing many fresh insights and new research directions.

The study reported here took the opportunity of investigating some of the home and school influences on twenty children's writing development within the context of large-scale longitudinal research project. Further work on the developmental aspects of these children's writing products and (observable) processes is in progress (Raban, forthcoming). The 'Children Learning to Read' project (Raban and Wells, 1978) followed twenty children through their first two years in school. These children were later investigated in their junior schools at nine years of age ('Children Learning to Write' project, Kroll et al, 1980), and were drawn from the larger sample of children who had previously been investigated in the Bristol longitudinal research project 'Language development in pre-school children' (Wells, 1974).

Data collected in all three phases of the research included measures of oral language development during the pre-school years, transcript and interview data concerning parental and child interest in literacy, monthly classroom observations during the two years of infant schooling, test results when the children were at school and a systematic collection of their writing which amounted to over six hundred scripts. The children's writing at three different ages was assessed using the procedures outlined below.

Writing at Five years

From work completed during their first term in school three pieces of writing were selected for each child and scored according to the rating technique for observing
early progress (Clay, 1975 and 1979). This measure involves three levels of scoring: Language Level, Message Quality and Directional Principles. Of these three, the scores collected under Message Quality were used as a measure of writing at five years of age. This particular measure attributes a score (1-6) using the following descriptions as guidelines:

1. Child has a concept of signs (uses letters, invents letters, uses punctuation).
2. Child has a concept that some message is conveyed by writing (i.e. tells you a message which doesn't correspond to the writing marks).
3. A message is copied and the child knows more or less what that message says.
4. Repetitive independent use of sentence patterns like 'Here is a ....'
5. Attempts to record own ideas, mostly independently.

Writing at Seven years

During their sixth term in school four pieces of writing were selected from seventeen of the children in the sample. Three of the children were not writing independently of their teacher by this stage therefore their scripts were excluded from the scores. These scripts were assessed for both content and surface features using a variety of measures. One of these measures, writing quality, was scored using a measure of each writer's orientation to a reader (Menig-Peterson and McCabe, 1978). This measure is based on the assumption that a writer needs to be explicit with reference to the following items: who the participants were, where the events took place, what was involved, when the events occurred, how and why the events occurred. The scoring procedure was guided by the following framework:

1. Who
   0 No reference to participants,
   1 use of indefinite pronoun only,
   2 adequate specification,
   3 full specification including the child’s relationship to the participants.

2. Where
   0 Specification absent or confused,
   1 partial specification; where some but not all the events took place,
   2 adequate but incomplete specification,
   3 full specification.

3. What
   0 Specification adequate or confused,
   1 partial specification; use of indefinite pronoun,
   2 naming all objects.

4. When
   0 Time reference absent or confused,
   1 adequate time reference but incomplete,
   2 full time reference.

5. How
   0 Confused,
   1 incomplete,
   2 complete.
6. Why

0 Absence of causality,
1 presence of causality.

This scoring procedure claims to evaluate the completeness of the child's contextual embedding and is essentially qualitative in its approach. Each script was scored separately, yielding four scores for each child which were pooled to reach the final 'writing quality' score.

Writing at Nine years

On this occasion two compositions for each of eighteen children were selected for inclusion in this part of the investigation. Two of the children were not writing independently by this stage and therefore their scripts were excluded from the scoring procedure. One composition was entitled 'My Happiest Moment' and the second piece was written to a cartoon stimulus.

The scripts were assessed on a variety of measures of both content and surface features. The content measure of writing quality was based on the scores obtained by using a 'holistic' procedure. This procedure aimed to evaluate the overall effectiveness of the compositions in achieving their central aim. The holistic scoring procedure used here followed many of the suggestions given by Myers (1980) and the results of this assessment obtained for each of the two compositions were summed to arrive at a final score. (For further details see Kroll, in press.)

| TABLE 1 |
| Intercorrelation of statistically significant variables |

<table>
<thead>
<tr>
<th></th>
<th>Message Quality at 7 yrs</th>
<th>Writing Quality at 9 yrs</th>
<th>Writing Quality at 7 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Quality at 7 yrs</td>
<td>0.51</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Writing Quality at 9 yrs</td>
<td>0.74</td>
<td>0.67</td>
<td>-</td>
</tr>
<tr>
<td>Parental Interest (Trans)</td>
<td>0.55</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Child Interest (Trans)</td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class of Family Backgd</td>
<td>0.43*</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>Mother's Education</td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Croydon Check list</td>
<td>0.54</td>
<td>0.42*</td>
<td>0.40*</td>
</tr>
<tr>
<td>BSAG UR</td>
<td>0.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of Literacy 5</td>
<td>0.75</td>
<td></td>
<td>0.68</td>
</tr>
<tr>
<td>Time with Teacher (p)</td>
<td>0.51</td>
<td>0.47*</td>
<td>0.46*</td>
</tr>
</tbody>
</table>

*significance p = .05

<table>
<thead>
<tr>
<th></th>
<th>Message Quality at 7 yrs</th>
<th>Writing Quality at 9 yrs</th>
<th>Writing Quality at 7 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>levels</td>
<td>0.44*</td>
<td>0.48*</td>
<td>0.47*</td>
</tr>
<tr>
<td>p = .01</td>
<td></td>
<td>0.56</td>
<td>0.61</td>
</tr>
<tr>
<td>p = .001</td>
<td></td>
<td>0.68</td>
<td>0.73</td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>

*footnote: Stronger relationships would have been found if all 20 children had been considered at each age point. The children excluded at 7 and 9 years of age were those who scored low on all measures throughout the study.
Results of Data Correlation

The three qualitative measures of writing described above were submitted to a correlation analysis along with other measures which were collected during the three phases of the longitudinal study of which these children form a small sub-group. Table 1 illustrates all of the statistically significant correlations and it is interesting to note that the three writing quality measures, taken at five, seven and nine years of age, have a close relationship to one another.

None of the measures of oral language, from the transcripts of the children's spontaneous speech, developed by Wells (1978), correlated significantly with the three writing quality measures. This finding was similar to the one reported in the 'Children Learning to Read' study (Raban and Wells op cit), where a lack of relationship was found between the oral language measures and reading attainment at seven years of age. The argument put forward in that report suggested that the measures used to assess the skills of oral language and of reading were probably inappropriate. However, the report pointed out that a correlation might well be found if the skills to be tested were either productive, or receptive in both cases (i.e. writing rather than reading, or listening rather than speech). The former hypothesis has not been verified in this study. A further reason for this lack of correlation between writing quality and oral language could be caused by the new and essentially non-linguistic skills involved in learning to write. These writing-specific skills have to be acquired by all children during the early stages of learning to write and differences between the children in oral language ability appear to be of less significance.

The indices of child and parental interest in literacy obtained from examination of the tape transcripts were derived from the frequency of occurrence of particular indicators, such as literacy-based activities (e.g. looking at print) or utterances (e.g. asking for the spelling of a word). As the tape recordings consisted of spontaneous verbal interaction these data were considered to be potentially a more reliable indicator than parental reports which were gathered by interview. Eight transcripts were available for each child, spanning the period from 3 years 3 months to 5 years (one day every three months). Each transcript consists of 10 samples of 90 seconds duration; a total of 144 samples was therefore available for examination from each child, representing a total of 3.6 hours of pre-school life. These measures are described in detail by Moon (1976) and discussed in relation to later reading ability of these children by Moon and Wells (1979).

This study of children's writing progress indicated that those parents who were providing experiences relevant to the development of literacy in the home during the pre-school years had a lasting effect on
the progress their children made even with their writing at nine years of age ($r = 0.66$, $p < .01$). Similarly, the measure of class of family background of the children's parents also significantly related to some of the measures of writing ability. Although class of family background did not appear to be strongly related with writing development before nine years of age, mothers' educational background was more positively related ($r = 0.49$, $p < .05$ at five years of age; $r = 0.64$, $p < .01$ at nine years of age). However, this measure of current occupation and educational background is 'static' and only becomes meaningful when it is related to the 'process' variable reported above which quantifies what it is that the parents did at home which helped their children's writing development. Extended educational experiences of the parents beyond the minimal period of school attendance did appear to orientate the home towards valuing literacy and related activities, especially in the case of mothers, who could be seen as mainly responsible for the daily experiences of their pre-school children.

Further measures of 'readiness for schooling' included the Croydon checklist (Wolendale, 1982) and the Bristol Social Adjustment Guide (Stott and Marston, 1970). These were completed by each child's teacher shortly after the children had entered their infant school. Measures like these could be seen as resultant of the pre-school home environment. For instance, the Croydon checklist has been designed to identify those children at age five years who are 'at risk' with respect to later school failure, although in this study these scores were only weakly related to later writing development. The Bristol Social Adjustment Guide (under-reacting) also related positively with the measure of message quality at five years of age. This finding alerts teachers to the problem of the under-reacting child who enters school with skill in writing but who may well go unnoticed in a busy classroom, probably being quiet and well-behaved. This kind of child may have an advantage in developing some of the powers of concentration necessary to learn the skill of writing, but may find that further writing development in school is slow. This was indicated by the lack of correlation with the writing measures at ages seven and nine years.

The tests used to assess the children's knowledge of literacy at the time they entered school were Concepts about Print and Letter Identification (Clay, 1972 and 1979). The scores from these tests were combined to give an index of pre-school knowledge about literacy. Not surprisingly, this index correlated highly with the measure of message quality at five years of age and it has also been found to be highly correlated with the children's reading
ability at seven years of age (Raban and Wells, op cit). Again this measure can be seen as an indicator of differing pre-school experiences between the children with regard to their experience of literacy at home and it was also found to correlate strongly with the measure of writing quality at nine years of age ($r = 0.68$, $p < 0.001$). This relationship strengthens the conviction that a child's home remains the same in its orientation towards literacy throughout the child's school life.

Observations of these children in their classrooms were also conducted during their first two years in infant school. These observations took the form of a running record of the sample child's activities and behaviour during a complete morning from 9 a.m. until 12 noon, once every month (Raban et al, 1977). The record of these observations was designed to yield two types of information; firstly an account of the different activities engaged in and the amount of time spent on each; and secondly a detailed description of significant aspects of these activities. During these classroom observations particular attention was paid to any interactions between the sample child and their teacher, prose notes being made of what happened on these occasions.

A previous study (Raban, 1979) looked at the relationship between these teacher interaction times on all literacy activities and reading attainment at age seven years. The results were disappointing, giving no statistically significant positive relationships between children's time spent with their teacher during literacy activities, receiving either preparation ($p$) or feedback ($f$), and progress in reading during the two-year period of the investigation. Somewhat similar results were found here, although the measures of writing quality nearly reached a level of statistical significance ($r = 0.47$, $p < 0.05$ at age seven years, $r = 0.46$ $p < 0.05$ at age nine years). However, it should be pointed out that in this study of the children's writing the time spent with the teacher in preparation for a writing activity was calculated as a percentage of the total time spent with the teacher during writing activities alone as opposed to all literacy activities. It is possible that this finer distinction enabled the relationship to become more apparent. Nevertheless, this quantitative analysis is of less interest than the qualitative information collected in the prose records of the observations. These records reveal the details of teacher-behaviour during their interactions with the children while they are learning to write and may provide us with insights into more effective teaching strategies.

Influences of the School

Children's early compositions frequently emerge from their drawings which capture a news event or 'story' they choose to focus on each day. Teachers transcribe captions or sentences spoken by the child relating to
This drawing. The child is required to trace over or copy under their teacher's writing, or at a later stage, to copy from a sentence book. Finally they develop towards the point where they compose their own 'stories' asking their teacher for the spellings they need.

The observed teacher-characteristics which were positively related to progress during these stages of writing development fell into two main categories; firstly those related to the conventions of the written representation of language, and secondly those related to the content of children's compositions. Teachers who helped children with the conventions of writing showed the children how to form letters and read back what they had written for a child, pointing to each word as they read it aloud. They showed the children where to start writing and marked the place with a dot. They also drew children's attention to word-spacing and line-lengths and helped the children to overcome these difficulties. In addition, they provided the children with letter formation and individual word practice through the use of initial-letter books, probably intended to help more with reading than with writing.

With respect to the content of the written compositions, children made more progress when they received support from their teachers through the following activities: teachers talking to the children about their drawings and encouraging them to include more of their thoughts in their pictures; asking them probing questions about their 'story' prior to transcription; writing down exactly what each child said, reading the words aloud as they were written down; reading back the transcription for the child, pointing to each word and helping the child to do the same; when the child completed the tracing, copying or writing, the teacher helped the child to read it back, also probing with interested questions to extend the composition; in addition teachers read aloud the final composition in the child's company.

The teachers observed in this study varied in the extent to which they achieved all of these characteristics. These observations were subsequently used to form the basis of a checklist against which each child's experience was recorded. An analysis of the results of this scoring procedure identified those schools which provided learning-to-write environments found to be more successful with respect to the children's writing development. No child reached the total score of 14 on this scale of teacher-characteristics, nor was any child deprived totally of the experiences listed above. Schools deemed 'good' with respect to writing development scored between 6 and 11, those deemed to be 'poor' in this respect scored between 1 and 5.

Combined Home and School Influences

In a similar manner homes were also identified
which provided more successful environments for the development of literacy skills. This was achieved by tallying information from the pre-school tape-transcripts, and interviews with the parents when their children were aged five and seven years. An index of parental interest in and provision for literacy in the home produced scores ranging from 10.7 to 53.0. 'Good' homes achieved scores between 30 and 55 and 'poor' homes scored between 0 and 29. Table 2A illustrates the scores of these four groups against the measures of writing. It appeared from this analysis that the differences between the contributions of the homes were far greater than those between schools and it also appeared to be the case that these larger differences between homes created a lasting influence on children's writing development. These results were confirmed using a partial correlation analysis which revealed no statistically significant results between the school index and writing at ages seven and nine with the home index held constant. However, the results did reveal statistically significant relationships between the home index and writing at seven years of age ($r = 0.65, p < 0.01$) and at nine years of age ($r = 0.59, p < 0.01$) with the school index held constant.

### Table 2

<table>
<thead>
<tr>
<th>Group</th>
<th>Message Quality at 5 years</th>
<th>Writing Quality at 7 years</th>
<th>Writing Quality at 9 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean score</td>
<td>t-test</td>
<td>Mean score</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G home</td>
<td>N = 12</td>
<td>4.0</td>
<td>t = 2.73</td>
</tr>
<tr>
<td>P home</td>
<td>N = 8</td>
<td>2.6</td>
<td>n.sig.</td>
</tr>
<tr>
<td>G school</td>
<td>N = 9</td>
<td>3.8</td>
<td>n.sig.</td>
</tr>
<tr>
<td>P school</td>
<td>N = 11</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G home/G school</td>
<td>N = 4</td>
<td>5</td>
<td>t = 3.33</td>
</tr>
<tr>
<td>P home/G school</td>
<td>N = 5</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>G home/P school</td>
<td>N = 8</td>
<td>3.5</td>
<td>n.sig.</td>
</tr>
<tr>
<td>P home/P school</td>
<td>N = 3</td>
<td>2.3</td>
<td></td>
</tr>
</tbody>
</table>
Children who came from the 'good' and 'poor' home groups attended both 'good' and 'poor' schools thus creating four possible combinations of home and school experiences for the children: 'good' home and school, 'poor' home and school, 'good' home/'poor' school and 'poor' home/'good' school. A further analysis of the data, illustrated in table 2B, evaluated the combined contributions of home and school influences. The mean scores alone indicate a marked difference in favour of the 'good' home group regardless of the school effect. However, the influence of the school becomes more apparent between those children who come from 'poor' homes. Children who come from 'poor' homes and attended 'good' schools were more successful with their writing development than those who came from 'poor' homes and attended 'poor' schools. This claim is substantiated in this study where all of the children who were not writing independently of their teacher by seven and nine years of age were identified as coming from 'poor' homes and two of these three children also attended 'poor' infant schools.

Nevertheless, statistically, the differences between 'good' and 'poor' infant schools were non-significant except when 'good' and 'poor' home contributions were also considered. When these combined influences were contrasted with measures of writing quality after two, and even four, years in school, the contribution of the infant school in overcoming the disadvantages of a 'poor' home environment were clearly indicated. Although the sample size in this study was small, over thirty teachers were observed interacting with these twenty children during their first two years in school. It is, therefore, important to recognise the significant contributions which infant school teachers can make in compensating for the less effective home environment with respect to the writing development of primary school children. The teacher-characteristics identified in the classroom observations reported in this study can provide the framework within which it is possible to further develop the provision for a positive learning-to-write environment in infant classrooms.

Acknowledgements

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