The development of literacy skills in children with Down Syndrome during their transition from preschool to school.

Christine M. Rietveld
Education Department
University of Canterbury

Paper presented to the NZARE Conference, Nelson

December, 1996.
The development of literacy skills in children with Down Syndrome during their transition from preschool to school.

Few research studies have examined the reading and writing abilities of children with DS. This situation has arisen mainly due to historical factors such as children with DS being considered ineducable (Milofsky, 1974), their residential placements tended to emphasise custodial care rather than education (Appendix to the Journal of the House of Representatives, 1956), their education in special settings focused more on functional self-help skills than literacy and numeracy (Brown, 1993; Leeming, Swann, Coupe & Mittler, 1979; Wilson & Simmons, 1989) and even when enrolled in regular classrooms, their presence was and is still often viewed as predominantly for social reasons (Morgan, 1990; Parmenter & Nash, 1987). While isolated case studies concerning the literacy abilities of people with DS are available e.g. the well-known diary of Nigel Hunt (1967), and more recently those of younger children whose reading abilities are equivalent to or exceed those of their age-mates (Duffen (1976; Rietveld, 1989; 1990, Challenger, van Blaricom, Brenneman & Staub, 1996), a long history of exclusion and low expectations have contributed to many children with DS being denied the opportunities to develop reading and writing skills. The area of emergent literacy in children with developmental disabilities has also received scarce attention in early childhood education (Katims & Pierce, 1995; Koppenhaver, Colman-Pierce, Kalman, & Yoder, 1991).

In recent years, there has been a major shift in the lives of people with DS with improved living conditions, education and employment, increased human rights and raised expectations (Burns & Gunn, 1993; Gray, 1993; Little, 1996; McCarrick, 1992). Enhancing the literacy skills of children with DS can therefore be argued on the following ethical and research grounds.

First, all who are unable to read and write in a literate society are prevented from fully participating. They run a greater risk of being taken advantage of and their quality of life is likely to be reduced. As noted by Smith & Elley (1994), literacy provides "a valuable source of information, of imagination, of security, and of independence. (p. 4)."

Second, research on the literacy skills of the DS population strongly indicate that most are able to benefit from reading and writing instruction (Hayden
& Haring, 1977; Pieterse & Treloar, 1981; Johansson, 1993). Fowler, Doherty & Boynton (1995) estimate that approximately 40% of adolescents with DS have acquired at least some reading skills. Less data are available on writing abilities, but what are available suggest that despite performance being at a much lower level in relation to their chronological age, they are still able to profit from writing instruction and make gains (Rietveld, 1991). If these children do not receive appropriate instruction - not mere physical placement in a reading or printing group with limited concern about the outcomes, then they are being denied a basic right (New Zealand Curriculum Framework, 1993).

Third, the acquisition of reading and writing skills are likely to enhance the development of other essential skills in children with DS. Buckley (1985) found that the ability to read enhanced oral language. Children with DS have poor short-term aural memory and written words remain in place longer for the child to process all the information. Since semantic and syntactic skills can be acquired from either oral or written language and since it appears easier for children with DS to learn to read than to speak (Buckley, 1985), reading development may enhance verbal language which in turn has the potential to enhance communication and social development. Reading and writing may also enhance cognitive skills. Farrell & Elkins (1995) state that "...print serves as a memory prop and provides support for additional cognitive operations that might otherwise prove too difficult. (p. 277)."

Fourth, while functional skills have their place, it is important not to overlook the intellectual and human side. As noted by Stainback & Stainback (1990), "...any student's education would be incomplete without at least providing him or her an opportunity to be introduced to materials and discussions in history, literature, music, art and science that promote an understanding of the world, sensitivity to the human condition and reasoning and thinking skills ....it is a mistake to limit any student's education to learning only daily life functional skills (p. 14)." As most children with DS live and participate in community activities from infancy (Rietveld, 1989), they need to acquire skills in literacy to enable them to benefit optimally from the many opportunities available.

The present study examined the development of reading and writing skills and factors affecting these skills in 3 boys with DS from their last month at
kindergarten and early intervention participation to approximately a term and a half after starting school. The data are part of a larger study in progress investigating the transition to school for all the children with DS in Christchurch during a specific year.

Method

Participants and Settings: Three boys with DS, their parents, school teachers and other key people involved in their transitions participated in this study. Two boys (Ian and Jonathan) attended the local school of their parents’ choice while Mark was enrolled at a non-local school where he was warmly welcomed and spent time in both integrated and special classes. All children were observed at their early intervention programme and all, but Mark\(^1\) were observed at kindergarten.

Procedure: The children’s reading and writing behaviours were observed in their homes, kindergartens, early intervention programme and schools through direct continuous narrative recording observations. The belief systems, attitudes and accompanying practices of the teachers, teacher-aides, parents and other key people involved were obtained through informal discussions, field notes, observations of meetings and semi-structured interviews. Information from early intervention reports sent to schools and copies of at least one printing task for each child supplied by teachers were also used. Approximately 100 hours of data were collected for each child in his settings and the key people involved in that context.

Data Analysis: The data from the early intervention reports and naturalistic observations of the child at his kindergarten, early intervention programme, first week of school and home were compared to observational data obtained approximately one term and one half later at school and home when the child was engaged in literacy-related skills. Interview, field-notes and meeting data were used to support findings from the observations or where observational data were absent, interview data were used alone.

\(^1\)Mark was hospitalised immediately prior to school entry. Consequently, no observations could be undertaken of him at kindergarten.
Information on practices and philosophy of inclusion held by the key people involved with each child (teacher, teacher-aide, parents) were obtained from the observational data and semi-structured interviews. Recurring patterns of behaviour and philosophy on disability held by the school personnel were noted and categorised according to the models of disability presented by Oliver, 1986,1993; Fulcher, 1990. Data on the latter were also included for parents.

In an effort to account for the differing gains made by each child, the observational and interview data were then further analysed for recurring themes that were taking place in each child’s immediate and wider context and that seemed to impact on the child’s acquisition of literacy skills.

Results

Results are presented in the following order:
1) A description of each child’s reading and printing abilities on school entry and 4 months later,
2) the philosophy of disability held by all those involved and accompanying practices (where relevant) teachers engaged in at a macro-level,
3) the immediate classroom context in which reading and writing took place for each child and
4) wider issues impacting on each child’s acquisition of literacy skills.

1) Description of Children’s Reading and Printing Skills

Ian

Table 1 outlines the oral reading abilities possessed by Ian on school entry and approximately 4 months later.

| Insert Table 1 here |

As can be seen in Table 1, Ian’s reading abilities continued to develop while at school. He had progressed from reading emergent readers of which he could read many on school entry past the Red series Levels 1 and 2, and with his reading group, he had started on Level 3 of the same series (Father Bear Went Fishing) during the follow-up observations. Furthermore, he
had learned many of the skills necessary to benefit from learning to read in a group situation e.g. sitting up straight and attending, reading at the same pace of the group, following the text while others are asked to read aloud on cue, staying with the group and so forth). These behaviours which the teacher called 'surrounding behaviours' were not evident on school entry when Ian was frequently observed touching others or their possessions, attempting to leave the group, reading the book at his own pace, shutting his book during instruction and so forth. He also appeared to have acquired most of the book-related concepts used in instruction such as, "open the book on the very first page", "point to the words." He knew the difference between a single letter and a word and other concepts such as cover, back of the book, how to turn the pages and so forth.

Table 2 outlines the print-related abilities Ian had acquired on school entry and those evident 4 months later.

Insert Table 2 here

Clearly, Ian’s printing skills progressed throughout his time at school. While he had acquired a number of competencies on school entry, many of these were demonstrated more consistently and were extended. e.g. while Ian could print his real first name which contained 7 letters independently and accurately before starting school, he still frequently made errors by leaving out letters, mixing up the order, writing it illegibly or a combination of all these errors. However, after 4 months of schooling, he could not only print his first name consistently correctly, but also his surname and several other words such as ‘car’, ‘in’ ‘Dad’ and ‘Mum.’

Ian was also observed engaging in pre-printing symbols, letters and squiggles at home, kindergarten and on school entry. However, a transformation from that into more purposeful and legible writing took place as time went on. e.g. Ian would start captioning his drawings, writing out words he knew well such as the names of his family members and preferred objects such as ‘ball’ ‘book’ and ‘car.’ He also asked his parents how to spell certain other meaningful words such as ‘school,’ his teachers’ and classmates’ names and the name of his younger sibling. He was observed and reported to be engaging in print tasks of his own accord more and more often, thereby practising and using the skills acquired.
However, other aspects of Ian’s printing which related more to the planning of written work such i) as where to start, ii) how to write a word so that it would fit on a line or a sentence on a page, iii) accurate spacing between words or letters and iv) and printing two or more words on different levels were still erratic and showed no consistent improvement.

Mark
Mark’s reading and printing development was very different from Ian’s. His level of skills on school entry were considerably less and no noticeable gains were evident 4 months after school entry. An overall summary of his reading development is presented in Table 3.

Insert Table 3 here

As can be seen in Table 3, there was no visible progress in Mark’s oral reading abilities during his time at school and this observation was confirmed by his classroom teacher.

Table 4 outlines the print-related abilities Mark had acquired on school entry and those evident 4 months later.

Insert Table 4 here

Mark made no visible progress in printing throughout his time at school. While he entered school with a number of pre-requisite skills for learning to print (copying and tracing over shapes, symbols and some letters, printing lines and circles on cue) and he was able to write his name with minimal help, none of these skills were extended at school.

Jonathan
Table 5 outlines the oral reading abilities possessed by Jonathan on school entry and after one term (3 months) of schooling.

Insert Table 5 here

Despite possessing a number of reading skills on school entry and participating in a regular class reading group, Jonathan’s reading abilities did not progress in the classroom context. Although not observed during reading instruction during the follow-up observations 3 months after school entry, his teacher and mother reported that few, if any gains had taken place in terms of reading or the necessary behavioural skills to benefit
from learning to read in a group situation (e.g. staying with the group, having the book open on the right page, sitting up straight, pointing to individual words and so forth).

Jonathan's reading development did however, continue to progress in the home situation where he was reported to read and was observed reading several emergent readers and Red Level 1 series reading books independently. His parents also reported an increase in the number of sight words he was able to read at home.

Jonathan's printing skills are presented in Table 6.

[Insert Table 6 here]

While one aspect of Jonathan's printing improved over time (his spontaneous continuation at the tracing parts of the printing activity), no visible progress occurred in most aspects of his print skills and in fact, some of his competencies actually declined. Unfortunately, the skills which Jonathan demonstrated on school entry but no longer displayed after three months of school attendance were ones considered essential for his print-skills to develop optimally. These included: 1) legible copying of letters and words as copying enhances independent printing more than tracing. (Askov & Greff, 1975; Kirk, 1980). 2) error awareness necessary for making qualitative improvements and 3) self-monitoring skills necessary for more independent work. These were all skills seldom possessed by even older children with DS (Rietveld, 1991).

Furthermore, instead of Jonathan's print-work beginning to look more legible which was to be expected given that on school entry he was able to copy several alphabet letters legibly and his attempts at storywriting consisted of the pre-printing, squiggles, symbols and letters typically seen in preschool and early primary school children (Smith & Elley, 1994; Tann, 1991), his self-generated work became more illegible.

There were no developments in the planning aspects of his print-work.
2) Philosophy of Disability and Accompanying Practices

At a macro-level, there were different underlying beliefs and accompanying practices concerning disability and inclusion which impacted on what actually happened in each classroom and consequently affected the learning of literacy skills.

It appeared from the data that the school personnel's and parents' philosophies of disability fell into the theoretical models proposed by Oliver (1986; 1993) and Fulcher (1990). These were as follows:

(1) **Personal tragedy/medical model**: In this model, the source of the problem is located within the individual - her/his so-called personal defects or deficiencies. Solutions centre on 'fixing' or remedying the individual, e.g. providing social skills training to remedy the child's social isolation.

(2) **Social model**: This philosophy locates the problem externally in that the social and physical environment fails to take into account the needs of particular individuals or groups. As an example, if social isolation was an issue, the focus would centre on providing a more conducive environment in which peer interaction might take place such as requiring tasks to be undertaken co-operatively instead of individually.

**Philosophy of Disability: Impact on Inclusion**

**Ian**

In Ian's school, all the key people involved held a philosophy of disability which focused on addressing the key contexts surrounding Ian as opposed to targeting Ian's deficits (Oliver, 1986; 1993; Fulcher, 1990), i.e. they focused on the implicit and explicit curriculum, their attitudes, quality of family/school communication, Ian's and his family's rights. When issues arose, they focused on their beliefs and practices as opposed to immediately blaming Ian's deficits or his family's expectations. His parents were fully supportive of this philosophy. Learning in all areas of the curriculum was considered essential, even if it was at a slower rate in some areas than his age-mates. Becoming literate was seen as a high priority for Ian by all concerned.
The teacher-aide was a trained teacher and her role was clearly specified in conjunction with all those concerned. The teacher-aide and teacher started team-teaching which resulted in more individualised attention being available for all the children. Ian was never singled out but always included as an integral member of a group. His teacher-aide was responsible for his reading group which consisted of 8 hand-picked children who demonstrated mature behaviours and who seemed to relate well with Ian and vice versa. His teacher-aide was also responsible for the learning of all the children at his writing table. Many of these children were also in his reading group and some were children he regularly sought out or sought him out during free-play. Deliberate attention was focused on the composition of these groups so that an atmosphere was created that was not only free from threat, but that was actually supportive of Ian and one another.

Mark
In Mark's school where there were special classes for those with disabilities alongside inclusion for particular subjects, the philosophy of disability centred around the individual deficit or medical or personal tragedy model (Oliver, 1986, 1993, Fulcher, 1990). The focus was on Mark's limitations and solutions centred on remedying those deficits. While warmly welcomed by the staff and his part-time inclusion/special class arrangement was considered "mainstreaming", no changes in practices, beliefs or organisation occurred because of Mark's presence. Mark experienced no sense of belonging. Prior to morning break, he participated in 3 different classrooms and after that, he participated in a special class where all the children were generally unable to relate to one another or model more advanced behaviours. His teacher-aide was untrained and always worked with Mark in a one-to-one situation, which further decreased his opportunities for becoming part of a peer group. The learning of reading and writing skills were not a priority as his teacher stated, "I don't get uptight about not teaching academic things.....I always feel that to be social, to get on with others and to interact with the other children is top priority." When instruction took place, it was done so individually so he was never exposed to more competent readers and writers modelling more advanced skills and he also missed out on the potential support and motivation a peer group such as Ian's offered (Kunc, 1992). Mark's parents did want and expect Mark to learn reading and writing and they had already helped Mark acquire some literacy skills at home, but after a term and a half of school,
they began to take the teacher’s perspective and started querying whether literacy was in fact a realistic goal.

Jonathan

Jonathan’s school had the same philosophy as Mark’s. Jonathan was welcome as long as his ‘deficits’ could be managed in the regular classroom. The reason for his inclusion was seen by his teacher as being “... primarily for social reasons...” and his principal echoed similar sentiments. Like Mark’s school, no changes were made to the regular classroom programme or school context. Unlike Ian’s school where a trained teacher was appointed as a teacher-aide, Jonathan’s teacher-aide was the regular teacher-aide for the school. How she worked in the classroom was never specified, although there was an implicit assumption her role was to work with him in a one-to-one capacity. The class teacher and principal believed in a deficit model of disability which was at variance with Jonathan’s parents who believed that some modifications were needed to the curriculum if he and his classmates were to optimally benefit from inclusion. Acquisition of literacy skills were highly valued by Jonathan’s class teacher, but not necessarily for Jonathan as his abilities were considered to be very limited. He was able to read emergent reading books independently at home and had a sight vocabulary of 20 words, but Jonathan never displayed these skills in the classroom. As Jonathan’s mother stated in her final interview, “...I felt that he (Jonathan) was making big progress with his reading, but that was because I was doing it. I think at school, things are still going too fast for him. I think things are being said and actions are being taken that are above his head...” Jonathan was placed in a reading and printing group, but the group consisted of the least competent children in the class and most had additional issues such as challenging behaviours, English as a second language, a speech and language disorder and most were new to school and did not know the routines. While Ian’s group remained stable at 8 members, Jonathan’s group kept expanding as new children entered this class. Overall, the group lacked structure, stability and competent role models. Several of these children were also observed harassing and verbally abusing Jonathan in other contexts (e.g. during other mat activities and in the playground) when no adult was about. Jonathan did not experience a safe and supportive context in which he could learn to read and write - an essential feature of any environment where learning of content is to occur.
Jonathan was physically present, but an outsider in the eyes of his peers and this seemed to affect how much he was able to focus on the literacy tasks required.

3) Issues relating to classroom instruction and wider issues impacting on acquisition of literacy skills

a) Behavioural Expectations
Ian's teacher and teacher-aide placed considerable emphasis on how to attend, sit and so forth at the beginning of the term. Little attention was focused on these aspects later in the year as the children including Ian internalised what to do. Most of the emphasis was thus able to be placed on aspects of the reading process.

In Mark's class, this was not an issue as he was not part of a group and in Jonathan's class, these aspects were intermittently attended to. End-of-term observations indicated that the children in Jonathan's group including Jonathan still lacked some of these essential skills to enable them to profit from the instruction. The teacher still needed to emphasise the procedural aspects such as sitting up straight, pointing to the text and so forth as much as she did at the beginning of term.

b) Teacher's Focus: Group or individual?
When Ian or others engaged in inappropriate behaviour, the teacher-aide seldom focused on the individual, but on the appropriate behaviour. e.g. on one occasion, when Ian was the only one not sitting appropriately, the teacher-aide stated to the group, "Could I have everyone down here ready for reading?" Ian got down and joined his group. During Mark's and Ian's reading and writing instruction, the focus was usually on their deficits as individuals e.g. "Watching Jonathan" "No Jonathan, just looking at the cover." "Jonathan, where's your reading book? You go and get it."

Focusing specifically on the individual as opposed to the desired behaviour during reading and printing time is likely to highlight the child's incompetence and contribute to alienation from the group as opposed to helping all the children feel that they belong to the group psychologically which in turn is more enabling of learning the content.
c) Assessment of Skills
Ian’s teacher and teacher-aide consulted intensively with Ian’s parents and early intervention staff to ascertain precisely what Ian’s capabilities were. They observed him reading and printing in the familiar settings of his home and early intervention centre. When at the beginning of Ian’s school career, he refused to engage in reading or printing, his teacher and teacher-aide were convinced that he possessed a strong foundation of skills as they had seen him display them, but that there must be contextual factors preventing from his displaying the skills in school.

There was a mismatch between Mark’s highest level of functioning and the content of instruction. Despite the early intervention report describing Mark’s competence in these areas, there was no teaching at this level, e.g. adults always printed his name on his art work, despite his being nearly independent at writing his name himself.

There was also a mismatch between the content of instruction and Jonathan’s current level of functioning. His parents’ and early intervention staff’s views concerning his abilities were dismissed on the basis “It (reading and writing) doesn’t come through in the group situation.” Some essential concepts were not yet acquired that would facilitate development in both areas and when Jonathan’s mother raised some of these (e.g. she was concerned about him not knowing his alphabet letters), this concern was dismissed and other concepts not yet acquired were not noticed by either teacher or parents. There was disagreement as to how printing should be taught which resulted in a variety of techniques being used by the teacher and teacher-aide, but no aims or goals were ever established in this area, despite Jonathan’s parents making several attempts at instigating a meeting for this purpose.

d) Clarity of aims in reading and print tasks
The printing and reading programme for the class of which Ian was an integral member seemed to proceed in a clear logical manner, e.g. in printing the straight up and down letters were covered initially, there was some tracing and then some self-generation of the letter. A different letter was taught each day and this was communicated to Ian’s parents who brought an identical exercise book to the one used at school and provided some extra practice of the letter at home. There was no continuity in Mark’s reading and printing programmes. e.g. one day reading consisted of
Mark filling in missing words, another day involved pasting words on top of a sentence underneath a picture and on the third occasion, Mark was required to imitate each word after the teacher-aide. Such discontinuity also occurred with Mark’s printing. No clear goals were established for Jonathan in terms of reading and printing either. The goals that were established involved the mechanical aspects of tasks e.g. “Takes book out when told, keeps to the same page (reading) as others, prints starting in the right place.” Despite Jonathan’s mother not wanting the letters dotted for Jonathan as this involves a different task to self-generation of letters (Kirk, 1980), the teacher-aide continued to use this approach as she stated at the meeting, “I dot his stories.” The teacher then stated, “I don’t know whether that’s the right strategy or not, but she’s (teacher-aide) very good with him (Jonathan).”

e) Pace of Instruction
Children with DS are known to be marginally slower in their movements which is likely to affect the speed of their printing output and their execution of oral reading. Ian’s school adhered strongly to the policy of inclusion and altered the pace of the entire reading group to allow Ian to be successfully included. The teacher-aide ensured all children were ready before any oral reading took place (i.e. seated and attending, correct page open etc.). Mark’s reading occurred in a one-to-one situation so this was not an issue for his teachers. In Jonathan’s class, the pace of reading instruction was not altered and Jonathan had enormous difficulty keeping up with instructions, such as which page to have open, when to look at the text or picture, let alone actually read the text. The teacher seemed unaware that Jonathan was unable to keep up with his group. e.g. "Let’s read this altogether. We’re going to read it together and keep up with each other."

f) Implicit Aspects of Reading Process
Being aware that children with DS are less likely to make incidental connections (Cunningham & Sloper, 1978; Stratford, 1985), e.g. automatically turning back to the beginning of the reading book if there were still children in the group whom the teacher had not yet heard read aloud, Ian’s teacher and teacher-aide frequently highlighted such implicit expectations of tasks in ways that did not target Ian individually, e.g. "Now, it’s back to the beginning - this page everybody.” The implicit aspects of reading and print-related tasks were seldom highlighted for Mark and they were erratically highlighted for Jonathan.
g) Facilitating literacy development when the child may not have 'essential' concepts/skills usually acquired by new entrants.

While Ian was generally conversant with most concepts related to reading and printing, Ian's teacher and teacher-aide were constantly on the alert for 'gaps' which would prevent him from participating in his groups or in the instruction e.g. skills such as staying with the group, staying on the correct page, taking turns to read in a group were emphasised. Mark's teacher was unaware how to proceed with developing Mark's literacy skills and it did not appear a high priority.

"He (Mark) recognises his own name, but he was doing that before he even came here. I don't know whether he's recognising any of the other words....sometimes he does and sometimes he doesn't (select names of classmates or family members [and select 2 objects or cue], then I wonder whether it's a mood or motivation thing - you can never be sure, but that's what we're doing."

Jonathan's teacher also seemed unaware how to facilitate his development. He was able to read emergent reading books at home and he could independently print his name. However, there were some basic concepts and skills that he had yet to acquire e.g. knowing the difference between words and letters, where to point when reading, knowledge of more alphabet letters, how to sit and attend. While Jonathan participated in reading and print-related experiences with his peers, the skills and concepts needed to benefit from instruction were never targeted and incorporated into the classroom reading and printing programmes.

h) Teacher and Family Expectations/goals

Ian's teacher and teacher-aide and parents held high expectations for Ian's skills in literacy and ensured he met them. When difficulties arose, the focus was on the curriculum and how they were implementing it as opposed to Ian's deficits. As an example, when Ian was distressed on his first day after experiencing the library and another room, the teacher decided, "Because of his reaction to the library and the room next door, I didn't want to introduce another new thing...... What we'll do now is go and look at the hall as a group and talk about it." The teacher-aide also said, "I find sometimes that I have to find the right phrase to get through what I'm saying, but then Ian isn't alone in that...." as opposed to blaming Ian and his limited development. There were many opportunities throughout the day for Ian to self-initiate literacy skills which he often did
and when available, the teacher or teacher-aide would support and extend their development.

The expectations Mark's teacher and teacher-aide had for him were low, despite Mark already having acquired some competencies and showed interest in literacy skills. He was excluded from process writing on the basis that "it's not appropriate . . . I couldn't see Mark being mainstreamed for process writing." There were no opportunities for self-initiated printing, practice at or extension of his most advanced skills during the curriculum. Little attention was paid to the printing he had done at home to show the class at 'news' time. Despite the teacher and teacher-aide having had their attention drawn to it at the beginning of the day by an enthusiastic Mark (accompanied by his mother) clutching his pad on which he had made several attempts at printing his name, no-one ensured Mark had it with him at news time. When he found the pad on his teacher's desk and showed it to his teacher-aide after morning break, he received little attention for his efforts. Mark's parent's held high expectations at the beginning of his school entry by finding a school that would develop Mark as a whole person and this included skills in literacy. They continued to promote literacy skills at home as evidenced by Mark bringing along his pad with printing to show at 'news time.' However, after 4 months of schooling, his mother had modified her view to that of Mark's special class teacher where the essential outcomes became his 'happiness' and social development as his mother remarked, "I think he's coming away, but not as fast as I would like him to, but that's just Mark, you know... if he doesn't read, he doesn't read. If he doesn't write, he doesn't write. It's just one of those things. It's just Mark and you just have to accept him for what he is and what he can do instead of pushing him into things he can't do... so yeah, that's all I'll be doing now... Because every time, you ask him, 'Have you had a good day at school?', he says, 'Oh yes.' So at least, he's enjoying it."

Jonathan's teacher held high expectations in terms of literacy for her class, but believed Jonathan's limited abilities precluded him from making many advances in this area. Her focus when establishing goals at the IEP meeting was on his acquisition of behavioural goals e.g. sitting still on the mat, staying with one's reading group. Jonathan's parents had and retained their high expectations for the acquisition of literacy skills, but they had difficulty establishing dialogue with the teacher and teacher-aide
concerning how these skills might best be promoted. The teacher perceived their expectations to be unrealistic and consequently discounted every suggestion they made concerning how Jonathan could achieve literacy skills at the IEP meeting.

ii. Printing/Reading Instructions
Research concerning the learning of children with DS indicates that their auditory and visual short-term memory is weaker than in typically developing children. Visual memory is superior to their auditory memory (McDade & Adler, 1980; Stratford, 1985), suggesting that capitalising on visual cues is likely to enhance learning. Children with DS are also less able to take into account more than 2 dimensions of a task simultaneously (Stratford, 1980).

Ian’s teacher and teacher-aide took these factors into account when implementing the classroom reading and printing programmes. Instructions relevant to printing were presented when all the children were seated at their desks, had their materials ready and were about to engage in printing. Small aspects of each task were focused on one at a time to avoid overload. During reading instruction, the teacher-aide who took Ian’s group used a whiteboard to highlight difficult or key words or to get children to write up certain words. Other visual items were also brought along to illustrate key concepts in books e.g. a torch when there was a story about night-time and darkness.

Jonathan’s teacher presented most of the printing instructions while all the children were seated on the mat. By the time, Jonathan found his desk and located his printing book and pencil, the instructions (e.g. about letter formation and what he ought to focus on when printing) could be forgotten, particularly if difficulties arose in the interim e.g. he went to the wrong desk or he could not find his pencil. Jonathan’s teacher did not believe in making changes to the existing reading and writing programme on account of Jonathan’s inclusion. The order of presentation with the bulk of instructions given on the mat prior to printing at one’s desk remained the same throughout the term.

iii. Opportunities
Ian and Jonathan participated in reading and writing instruction virtually every day, whereas Mark who attended a special class for these subjects
experienced considerably fewer opportunities. Reading was only observed on 3 occasions and printing once during 100 hours of observations. Clearly, skills such as reading and writing cannot be developed if no opportunities and support are provided for them to do so. However, engagement in classroom literacy activities, without adjusting to the unique learning needs of all its members does not lead to equality of opportunity as evidenced by Jonathan’s experience. This point is also made by Graham & Harris (1988) who state, “Simply having students write, will not result in improved performance. The development of writing is not only dependent on the opportunity to write, but requires proper motivation, well designed and carefully sequenced instruction, and guidance and practice in developing relevant skills and strategies (p. 507)”. The data suggest that both opportunities and the provision of an appropriate learning environment are needed for the development of skills in literacy.

4) Wider Issues impacting on Literacy for Children with DS

Other than what actually took place in the classroom during reading and printing instruction were wider issues also affecting each child’s development of literacy:

i) Professional help
There was some professional help available to schools in the form of a) voluntary help from the early intervention programme each of the children had participated in prior to school entry, b) a psychologist and speech therapist and c) itinerant support teachers based at special schools.

Ian’s parents and school held the view that disability was a social construction. They did not accept the ‘support’ of specialists who they believed held the ‘personal tragedy’ or medical model. Initially, they used the voluntary support of the early intervention staff (who also saw disability as a social construction) and after that, there were no professionals involved.

In Mark’s school, there were several specialists involved in special education who were considered “experts.” These included Mark’s teacher who acted in an itinerant capacity for the first part of each morning. No extra professional advice or support was seen as necessary, although they were aware of what professional help was available. All “experts”
involved, including the special education service psychologist were adherents of the personal tragedy model and blamed Mark for his limited progress in literacy. They did not see the need to call in other professionals, and never addressed the disabling aspects of the contexts Mark participated in.

In Jonathan’s school, the initial support offered by the early intervention team focused on slight modifications to existing practices. This was considered unrealistic and was discounted. As the classroom teacher states, “I think there’s a real gap in reality between what early intervention do and think can be done Jonathan in the classroom. They need to spend more in a classroom to see. They’re not practical.....We did have information from early intervention. It was incredibly detailed and took ages to read.....It was far too detailed....”

Jonathan’s classroom teacher, teacher-aide and principal preferred the help offered by the itinerant teacher support service which was in-line with their own philosophy of disability. They considered Jonathan’s parents and early intervention staff expected too much from the school. The itinerant support teacher, who had a long history of teaching in special schools, had not acquired the philosophy underlying inclusion and reinforced the staff at Jonathan’s school for seeing disability within the “personal tragedy” framework. The same applied to Mark’s situation. These teachers and schools were being reinforced for believing that the reason why Mark and Jonathan did not acquire literacy skills was due to their inherent limitations as opposed to looking at modifying the contexts they provided for learning these skills.

Despite the law entitling all children with disabilities to an appropriate education at their local school, this issue raises the point that some schools may not have access to a professional who will advocate for children who do not make the kinds of gains they are capable of. Clearly, not all professional help is equally useful in terms of outcomes for the children involved, but teachers who are new to inclusion may not necessarily be in a position to be able to ascertain which help is/is not beneficial.

ii) Home-school communication
Ian’s school adopted a proactive stance and instigated weekly meetings with Ian’s parents to continually discuss and align the school’s and parent’s
perspectives. Issues relating to Ian’s literacy development were openly discussed. Ian’s teacher and teacher-aide had a high degree of knowledge concerning reading development in general, both having trained as reading recovery teachers and Ian’s mother was highly knowledgeable about DS and how it impacted on learning. She knew how to access available research and information concerning DS and inclusion. She readily shared this information and made suggestions for implementing the ideas. The school were eager to learn and willing to incorporate these suggestions after discussion and possible modifications within the classroom programme. Ian’s parents also incorporated activities at home that were suggested by his teachers.

Mark’s parents, teacher and teacher-aide communicated readily (mainly informally), but his parents left the content of Mark’s teaching programme primarily to the school. Since neither his teacher nor his parents seemed to be informed as to what could be reasonably achieved by children with DS nor how they could optimally facilitate Mark’s literacy, the positive relationship between the family and school did not benefit Mark in the way that it did Ian. Leaving the content of Mark’s education up to the teacher, resulted in Mark’s parents lowering their expectations of Mark. When the teacher was unsure how to promote Mark’s reading and writing development and he made no gains in these areas, instead of his parents querying what was happening and offering suggestions, they concluded that Mark was less capable than they anticipated.

Jonathan’s parent’s beliefs about inclusion and expectations for Jonathan differed from those of all the school. Despite many attempts at setting up meetings, their offering of support to the teacher and teacher-aide, the differences in perspectives about inclusion at a deeper level seemed to hinder any meaningful communication about subjects such as reading and printing. There was no plan as to where the reading and printing programmes were heading, no identification of specific goals, and a reluctance on the teacher’s part to discuss Jonathan’s reading, printing (and other curriculum subjects) with his parents. The latter was evident by the way the teacher made several attempts at putting Jonathan’s parents off the idea of a meeting “to address the unaddressed issues in the IEP.” As Jonathan’s mother stated after the IEP meeting, “There was no dialogue to facilitate talking about anything like that really.....I don’t think there was the situation where it was said, ‘Now what’s happening in printing....... we
haven't actually sat down and looked at what he's doing, what he needs to do and how we're going to do it."

The teacher-aide had completed a certificate in 'Special Needs Support' and had learnt a particular way of teaching reading and printing which differed from what the rest of the class were doing. "I've got this beat printing programme which is in a lot easier steps....." Jonathan's teacher was happy for her to go ahead using these programmes with Jonathan as she states, "Mum's not happy with the way the teacher-aide works, but she has done her certificate on special needs. The training that she's had and the parents' demands don't go hand in hand." Jonathan's parents wanted Jonathan included in the regular class programme and felt that he could benefit from the existing instruction, provided some adjustments were made. While the programme the teacher-aide wished to implement for printing involved tracing letters and going over dotted letters, Jonathan's parents knew of research to support their view that self-generation of letters is superior to tracing for developing independent printing. They did not want him engaged in a separate programme that would not only segregate him from his peers but actually delay his acquisition of printing skills. The teacher perceived Jonathan's parents as "difficult" and she felt that they (teacher and aide) were "not being trusted to do the job" (of teaching Jonathan). This placed Jonathan's parents, particularly his mother in a difficult position when she continually saw how aspects of the classroom context negatively affected Jonathan, while the teacher felt that these aspects were not her concern. Jonathan's mother stated, "...there's one boy in particular who hassles Jonathan and Jonathan can't cope with the other children's inappropriate behaviour. E.g. if a child throws a book at Jonathan, he'll throw it back, whereas I noticed Robert (another child) say to the boy who threw a book at him (Robert), "That makes me so annoyed. It's not funny!" Robert had the skills to cope with the situation. I can't easily leave Jonathan in the group without supervision because of the other children's behaviour which is often inappropriate..... He (Jonathan) will follow the peer group ..... and that's why I need to keep coming (to parent-help) to ensure that he learns the right behaviours."

The itinerant support teacher and principal also sided with Jonathan's teacher which resulted in alienation instead of a home-school partnership.
iii) Curriculum that offers spontaneous literacy opportunities
Opportunities for spontaneous interest in reading and print-related activity were plentiful in Ian’s room and many of his spontaneous interests were capitalised on and extended by his teachers. E.g., after seeing a classmate make a card for her mother, Ian decided to make one. If the teacher or teacher-aide were not available at the time, they noted what he did and invited Ian to go back to the activity and share it with them when they were available. There were fewer such opportunities in Jonathan’s and Mark’s classrooms. The way the classroom activities were structured resulted in their teachers not noticing or being available to share their spontaneous interest in literacy activities when opportunities arose.

iv) Quality of Overall Inclusion Experience
Because the critical aspects Ian’s parents desired from the school were adequately met, Ian’s parents were able to devote their attention to facilitating the goals set, including those for literacy development.

This was in marked contrast to Jonathan’s parents whose energy was consumed with more basic issues such as attempting to establish dialogue with the teacher about appropriate goals, trying to get heard without alienating the school, their concerns about the classroom context Jonathan experienced and feeling powerless to effect any changes, conflict over the way some subjects were taught such as printing and the reading instruction which they considered involved too many and rapid shifts from text to picture, over the page and so forth. Since there were many aspects of Jonathan’s school experience besides reading and printing that were unsatisfactory, Jonathan’s parents ended up devoting considerable attention to resolving these issues in a way that would not alienate the school. This may have affected the amount of time and energy they had available to promote Jonathan’s literacy activities at home, although they did continue to do so. However, in absence of getting the information they needed on specific ways of enhancing Jonathan’s literacy skills from the school or other professionals, it was difficult for his parents to know exactly how to proceed and what to expect as Jonathan’s mother stated, “It would be good to have someone monitor the children with DS as they move up the system. Are any of the children with DS able to story-write independently? It would be good if someone could provide us (parents) with this kind of information and how best to go about encouraging such skills if schools or the specialists from the itinerant support service or S.E.S don’t inform us.”
Nevertheless, Jonathan continued to progress at home with his reading. The number of sight words he acquired increased and he was able to read several emergent reading books fluently. However, this did not generalise to the school situation and aspects of the reading process could not be integrated as it appeared that he had some gaps in his book knowledge and the mechanical aspects of the task (e.g. turning pages).

In all, the data suggest that new entrant children with DS can acquire reading and writing skills in inclusive classrooms, but will not necessarily do so without educators deliberately focusing their attention on both the direct and indirect issues affecting inclusion and the development of literacy skills.

Conclusions

1) The contexts the child with DS participates in seem to significantly affect the child’s advancement of literacy skills. Ian and Jonathan had virtually identical skills on school entry, yet after a term of school entry, their literacy skills were very different. Given their similar competencies on school entry, these differences could not be easily explained by attributing these differences to the apparent limitations of one child and the superior abilities of the other. A more plausible explanation seemed to lie in the immediate and wider contexts each child participated in.

Further support for the argument that contexts strongly affect development is evident from the following example obtained from comparative data of Ian and Jonathan before and after school entry. Ian entered school with a cluster of behaviours that could easily have hindered his learning in a group situation and the subject content. e.g. in 7 hours observation at kindergarten, Ian engaged in 53 incidents of inappropriate behaviours such as hitting, pushing others, refusing to co-operate, throwing materials and so forth whereas after a term of school attendance, only 4 such incidents were observed in the same amount of time. The reverse occurred in Jonathan’s contexts. Only one inappropriate incident was observed during 7 hours of kindergarten observation and his kindergarten teacher stated, “Behaviour-wise, he is a delight.” However, after a term of school attendance, 16 incidents of inappropriate behaviours were observed during 7 hours
observation, no advancement in his literacy skills and his teacher commented about his behaviour, "...he doesn't sit and attend." Her focus at the first IEP meeting was exclusively on his 'inappropriate' behaviour.

2) Child must feel safe and psychologically belong to the group before learning can actually proceed. Ian's teachers engaged in practices that enabled all the children to feel safe, e.g. careful selection of group participants, promoting social interaction during morning break, lunchtime and in class (when appropriate) and they modelled and encouraged behaviours supportive of one another. In facilitating Ian's inclusion, they ensured he was included as an equal classmate. Mark's teacher made some attempts at promoting Mark's social interaction with children from the integrated class at lunchtime, but this was not followed-through. The contexts he participated in also mitigated against him psychologically belonging anywhere as he participated in 4 different classrooms in one day and the children in the special class were either older or lacked the skills to socially interact with Mark in an appropriate way.

Jonathan's teacher did not address factors related to his or other children's psychological well-being or actively promote his inclusion. Belonging and feeling safe are essential prerequisites to optimal learning of content. As Kunc (1992) states as he reflects on Maslow's work, "...providing a person with a sense of belonging is pivotal for that person to excel" (p. 30).

3) Mere placement and experiencing reading and printing the same as everyone else is insufficient. When Jonathan entered school, he was slotted into the reading group consisting of the latest new entrants (beginners) and placed at a writing table where there was a space. The reading and writing programme Jonathan experienced carried on as it had before his arrival with no modifications except that his teacher-aide was present during story-writing. Despite his participation in the class' reading and writing programme, Jonathan made no gains. The context was altered in Ian's classroom to take into account the literature on DS and how it impacts on learning, issues related to belonging, parent-school communication, the needs of other individuals and so forth. Ian made considerable gains. This would suggest that mere placement is insufficient, but that the context must be adjusted to enable all to benefit from the literacy activities provided in the classroom.
4) Philosophy of disability and its impact on inclusion: The data indicate that where all the key people involved viewed disability as a social construct, gains were greater than where one or all of the key participants adhered to the personal tragedy or medical model.

5) Wider Issues: i) The perspectives of those offering professional help were a key factor and something teachers may not always be aware of as a child enters school. e.g. in Jonathan’s situation, his teacher valued the itinerant teacher’s support despite the information-sharing not contributing to Jonathan’s inclusion or gains in his literacy skills. ii) At present, there is no advocate for the child with DS and her/his family, so that if a child is not advancing in the acquisition of literacy (or other) skills, there is not necessarily a competent professional to monitor the school learning context and facilitate what steps could be taken to alter that context. iii) Where the child’s and family’s needs have been satisfied at a lower level e.g. the child belongs, the parents are satisfied with the child’s development, the methods used to achieve goals, communication with the school is reciprocal with an informed knowledge-base and understanding of the relevant issues, literacy skills are more likely to occur.

6) A quality education is important for all students. For students with DS for whom many aspects of learning are likely to occur at a slower pace, the implications of poor assessment, failure to set meaningful IEP objectives/goals in literacy and communicate openly and effectively with parents are immense. Aside from the ethical issues raised, the consequences also pose the student with DS at-risk for increasing segregation and a poorer quality of life.
<table>
<thead>
<tr>
<th>Child</th>
<th>Skills on School Entry</th>
<th>Skills Evident 4 Months Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ian</td>
<td>Reads many emergent readers</td>
<td>Reads Red Level 3 reading books (observed 4 months after school entry)</td>
</tr>
<tr>
<td></td>
<td>Sight vocabulary of 45 words generalised to different contexts e.g. books, magnetic letters on fridge, posters on wall ...</td>
<td>Acquired behaviours to enable him to benefit from group instruction e.g. staying with group and attending, reading at pace of group</td>
</tr>
<tr>
<td></td>
<td>Identifies most upper and lower case alphabet letters</td>
<td>Identifies all letters and beginning to identify sounds of letters</td>
</tr>
<tr>
<td></td>
<td>Points to words as he reads</td>
<td>'I'm really impressed with it (Ian's reading). He gets a book every day (from school) and he can just about read every word in there. He can read the whole story to me...” (Father)</td>
</tr>
<tr>
<td></td>
<td>Self-corrects e.g. Text = 'A ship is big.' Ian reads, 'A boat is big' immediately followed by 'A ship is big.' (Pre-entry visit)</td>
<td>'He can read more than most children in this room. We can't always understand him as well. If we're sitting right with him with the book, you know what he's saying and know how well he can read it.” (Teacher)</td>
</tr>
</tbody>
</table>
Table 2. Print-Related Skills Possessed By Ian on School Entry and Approximately 4 Months Later

<table>
<thead>
<tr>
<th>Child</th>
<th>Skills on School Entry</th>
<th>Skills Evident 4 Months Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ian</td>
<td>Spontaneously prints first name, but may make errors</td>
<td>Spontaneously prints first and surname accurately, and also other words e.g. Mum, Dad car, in.</td>
</tr>
<tr>
<td></td>
<td>Engages in pre-printing squiggles, symbols and letters from left to right</td>
<td>Generates simple sentence or caption on own to illustrate drawing e.g. 'Mum and Dad.'</td>
</tr>
<tr>
<td></td>
<td>Traces over letters and words accurately</td>
<td>Traces accurately, but engages less often in this task as can generate own printing.</td>
</tr>
<tr>
<td></td>
<td>Copies words from book or paper (not blackboard) - needs specific cueing to continue at printing time</td>
<td>Same, but needs fewer direct cues to continue.</td>
</tr>
<tr>
<td></td>
<td>Spontaneously engages in meaningful printing in all settings</td>
<td>Spontaneously engages in more complex printing in all settings and more often.</td>
</tr>
<tr>
<td></td>
<td>Reads own print-work</td>
<td>Reads own print-work.</td>
</tr>
<tr>
<td></td>
<td>Low perseverance at doing printing in prescribed manner</td>
<td>Needs less cues to persevere at printing tasks, but often still resistant to completing task in prescribed manner.</td>
</tr>
<tr>
<td>Planning - variable. May start printing too far at bottom of page or too far over to right, but can be accurate</td>
<td>Planning of printing is variable, sometimes accurate, sometimes not, unpredictable without cueing</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Spacing of letters - varies</td>
<td>Spacing of letters - varies</td>
<td></td>
</tr>
<tr>
<td>Printing on same level - varies from considerable accuracy to inaccuracy</td>
<td>Printing on same level - varies from considerable accuracy to inaccuracy</td>
<td></td>
</tr>
<tr>
<td>Legibility of letters, words and sentences varies from extremely clear to barely legible</td>
<td>Legibility varies from extremely clear to barely legible</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 continued
Table 3. Oral Reading Skills Possessed by Mark on School Entry and Approximately 4 Months Later

<table>
<thead>
<tr>
<th>Child</th>
<th>Skills on School Entry</th>
<th>Skills Evident 4 Months Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark</td>
<td>Selects own name from other words.</td>
<td>Selects and reads own name</td>
</tr>
<tr>
<td></td>
<td>Spontaneously reads own name e.g. on own painting</td>
<td>Participates in stories, fills in missing words</td>
</tr>
<tr>
<td></td>
<td>Participates in stories, fills in missing words.</td>
<td>Shows keen interest in books</td>
</tr>
<tr>
<td></td>
<td>Shows keen interest in books.</td>
<td>“Actually....academically, I haven’t taught him very much. He recognises his own name but I suspect he was doing that before he even came here.” (Teacher)</td>
</tr>
</tbody>
</table>
Table 4. Print-related Skills Acquired by Mark on School Entry and Approximately 4 Months Later

<table>
<thead>
<tr>
<th>Child</th>
<th>Skills on School Entry</th>
<th>Skills Evident 4 Months Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark</td>
<td>Prints first and last letters of real name independently. Some help needed with middle letters.</td>
<td>&quot;He does a 'i' beautifully.&quot; (teacher interview)</td>
</tr>
<tr>
<td></td>
<td>&quot;He used to write his name, but he won't do it now.&quot; (Mother, 3 weeks after school entry)</td>
<td>&quot;I don't know if he's printing [at school].&quot; (Mother)</td>
</tr>
<tr>
<td></td>
<td>Traces over first name accurately</td>
<td>Traces over lines and symbols (not observed engaging in any other forms of print)</td>
</tr>
<tr>
<td></td>
<td>Copies and traces horizontal, vertical lines, circles and symbols on cue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prints horizontal, vertical lines and circles on cue</td>
<td></td>
</tr>
</tbody>
</table>
Table 5. Oral Reading Skills Possessed by Jonathan on School Entry and Approximately 3 Months Later

<table>
<thead>
<tr>
<th>Child</th>
<th>Skills on School Entry</th>
<th>Skills Evident 3 Months Later</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jonathan</td>
<td>Sight vocabulary of 20 words generalised to different contexts e.g. magnetic letters, on word cards, in books, although does not demonstrate these abilities at school</td>
<td>Not observed during reading instruction</td>
</tr>
<tr>
<td></td>
<td>Participates in stories, fills in missing words. Shows interest in books through independent reading, attending to stories at kindergarten</td>
<td>&quot;His reading is still at the pre-reading stage. He's still on emergent readers. I believe he can at home...but it doesn't come through in the group.&quot; (Teacher)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reads emergent readers at home accurately. Read 'Kittens' (Red Level 1 emergent reader) to self at bed-time in researcher's presence. Sight vocabulary has increased to over 30 words (At home)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;I don't think she knows (teacher) that he's reading. I feel that he's learnt more reading with me doing some every night at home than he has at school.&quot; (Mother)</td>
</tr>
<tr>
<td>Child</td>
<td>Skills on School Entry</td>
<td>Skills Evident 4 Months Later</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Jonathan</td>
<td>Prints first name, but may make errors. &quot;He can write his own name now by himself (Mother) - showed product</td>
<td>No change. &quot;He can write his name, but he could do that before. It’s (printing) very very slow.&quot; (Teacher)</td>
</tr>
<tr>
<td></td>
<td>Verbalises actions when writing name.</td>
<td>No verbalisation of actions while writing name</td>
</tr>
<tr>
<td></td>
<td>Engages in pre-printing squiggles, symbols and letters from left to right</td>
<td>No longer engages in pre-printing squiggles etc. &quot;The storywriting...he’s actually gone backwards. It’s just a scribble.&quot; (teacher aide)</td>
</tr>
<tr>
<td></td>
<td>Traces over letters and words, symbols, shapes, sloping lines accurately</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Copies some letters legibly e.g. 'o' 't' 'r' 't' 'j' 'e'</td>
<td>Copying during printing hardly legible e.g. letter 'c'</td>
</tr>
<tr>
<td></td>
<td>Needs specific cueing to continue at printing time</td>
<td>Continues tracing exercises without prompting, but needs cueing to continue self-generated letters</td>
</tr>
<tr>
<td></td>
<td>Some recognition of own errors despite teacher praise for completion</td>
<td>Little error awareness</td>
</tr>
</tbody>
</table>
Table 6 continued

<table>
<thead>
<tr>
<th>Planing - variable. May start printing in middle of line, bottom of page, too far over to right or leave out letters when tracing, but can be accurate</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spacing of letters varies</td>
<td>No change</td>
</tr>
<tr>
<td>Legibility of letters and words varies from very legible to barely legible</td>
<td>No change</td>
</tr>
<tr>
<td>Formation of letters - awkward e.g. produces 'r' from bottom up</td>
<td>No change</td>
</tr>
<tr>
<td><strong>Procedures</strong>: Gets pencil out and puts away on cue</td>
<td></td>
</tr>
<tr>
<td>Folds arms when required and waits</td>
<td></td>
</tr>
<tr>
<td>Attempts to do required tasks</td>
<td></td>
</tr>
</tbody>
</table>
References

Appendices to the House of Representatives - Mental Health (1956).


