
Oh, Brother! Siblings as an Untapped Literacy Resource for Boys

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Abstract

Forty-four inner-city, Year 2 Canadian children were interviewed individually about their home reading practices. Qualitative findings showed that not many adults read to children in their homes and that many children do not read to others in their homes. Unexpectedly, these environments were more common for boys than for girls. Furthermore, boys were twice as likely to read to siblings as were girls. The findings were examined within a systems ecological view and suggest that sibling relationships are a potential resiliency mechanism for addressing boys' underachievement in reading and school.

Oh, brother! Siblings as an untapped literacy resource for boys

Large-scale tests of reading achievement conducted in 42 countries have consistently indicated that boys' reading skills are poorer than those of girls (Council of Ministers of Education, 2001; Mullis et al., 2003). These statistics are especially alarming given that proficiency in reading is the strongest predictor of school success (Hoffert & Sandberg, 2001) and that basic mastery of literacy skills is a protective factor against school failure (Gore & Eckenrode, 1994). Not only are boys behind in reading performance, they also show a more negative attitude towards reading that is correlated with negative attitudes toward school (Baker & Wigfield, 1999). These negative attitudes toward school translate into a 40% higher dropout rate for Canadian boys than for Canadian girls (Bowlby & McMullen, 2000). Together, these statistics imply that boys are the 'new disadvantaged' (Foster et al., 2001) and increased efforts are being made to ameliorate the factors that put boys at risk. School-based interventions have been initiated to address boys' reading needs—such as boy-friendly books, hiring male teachers, and all-boy classrooms. In one province of Canada alone, over one million dollars of government funds have been allocated to investigate the effects of such school practices (Ontario Ministry of Education, 2004).

Although school initiatives are imperative for addressing boys' reading needs, they are only one part of children's interactions with written matter. Research has demonstrated that other settings have a significant influence on children's literacy development, providing an opportunity to enrich our understanding of boys' literacy development and its accompanying effects on success at school. One important site for literacy development is children's homes. Literacy development has been examined in the light of family variables such as socio-economic status (Baker et al., 1997) and family make-up, especially in single parent homes (Statistics Canada, 2001). Of particular note in the research literature are parent-child interactions (Senechal & LeFevre, 2002). Children's reading interests and achievement have been shown to be fostered by ensuring a print-rich home environment (Gest et al., 2004), family use of libraries (Greaney & Hegarty, 1987), having a parent who reads for themselves and to their children each day (Weems & Rogers, 2007), parents who speak the same language as the language of instruction at school (Yarosz & Barnett, 2001), and having adult reading models in the home who regard reading as entertainment rather than a skill-focused task (Baker et al., 1997).

Less attention has been paid to other people within the home who may play important roles in children's literacy development, specifically siblings. With several noteworthy exceptions (Ewin Smith, 1993; Gregory, 2001; Williams & Gregory, 2001), most family literacy research has focused on parent-child interactions. Even studies that propose to measure 'family literacy practices ... [such as] how often during the week children are read to by *family members*' fail to report on any family members other than parents (Yarosz & Barnett, 2001: 72). While the techniques that parents and teachers use to develop children's literacy skills have been effective in improving reading skills, less is known about the reading processes in relationships between siblings.

Williams and Gregory (2001) stressed the importance of examining sibling relationships by suggesting that siblings may be an important bridge between school and home, particularly in families where the parents are less familiar with the school's language of instruction than are the siblings who attend school (Zill et al., 1995). This is especially true for immigrant families—a demographic over-represented in the group of children who struggle with reading (Worswick, 2001)—in which older siblings can bring school values into the home and home values into the school. Furthermore, Gregory (2001) suggested that siblings can be a rich resource for their brothers' and sisters' reading development and that the synergy they produce through reciprocal teaching is unique to child-child relationships. In this way, either the younger or older sibling can take on a leadership role and create a fluid relationship that is very different from that of the teacher-child or parent-child interaction in which an expert guides a learner (Vygotsky, 1978).

In a dated but interesting study, Durkin (1961) investigated the family factors associated with children who could already read when they started school. Durkin showed that early reading was associated with having an older sibling who attended school. Almost half the children she interviewed clearly attributed their precocious reading skills to being taught to read by an older sibling. The most common

indicator for early reading ability was a child who had a sister who was two years older and who played school with the younger sibling. Moreover, the positive effects of sibling teaching are not restricted to academic benefits to the younger sibling. Ewin Smith (1990) showed that older siblings who teach their younger siblings develop better reading and language skills than other children who do not teach their siblings.

Norman-Jackson (1982) suggested that it is not only the amount of time the siblings spend learning together, but also the skill level of the older sibling that may affect learning outcomes. She studied interactions in sibling dyads that included a second grade student and a preschool sibling, showing that younger siblings of second graders who were successful readers had more mature language skills than younger siblings of second graders who were not proficient readers. Moreover, once the younger siblings started school, those who were taught by successful readers were better readers five years later.

In contrast, other research shows a decline in reading scores when a new child is added to the family, especially in socio-economically disadvantaged families (Baydar et al., 1997). Yarosz and Barnett (2001) found that the 'resource dilution' that occurs in larger families is predictive of children having no family members read to them. Together, these findings suggest that siblings do not always serve as resources but instead can be a threat to the development of children's literacy. However, Ewin Smith (1990) showed that an older child teaching a younger child in the home was enough to counteract any negative effects of having a younger sibling (such as less parental attention) on the older child's academic achievement.

While a small body of research has examined sibling effects, fewer studies have looked at the effect of gender on children's literary interactions with their siblings. Nonetheless, gender has been found to affect overall academic achievement. Paulhus and Scaffer (1981) showed that the Standard Achievement Test (SAT) scores were higher for female applicants with younger siblings but not for males with younger siblings. Ewin Smith (1990) interpreted this finding in light of research that shows that girls are more likely to teach their younger siblings and be advantaged by this activity.

Thus, the effects of siblings on children's reading development are under-researched, and the findings of research that has been done are contradictory. Furthermore, there is little knowledge of how gender impacts on siblings' home literacy.

Theoretical models

Current discussions of literacy development (Booth, 2006; Hong, 2008; Wilber, 2008) suggest that attention to multiple literacy is essential for understanding literacy development. New literacy studies are concerned with discourses: 'ways of behaving, interacting, valuing, thinking, believing, and often reading and writing that are accepted as instantiations of particular roles' (Gee, 1996: viii). In this way, new literacy studies examine the socio-cultural, interactive nature of development

over multiple contexts while they emphasise ‘distributions of social power and hierarchical structures in society’ (Gee, 1996: 132). Street (1993, 1995) suggested that school-based practices are only one context of literacy and problematises this narrow view as the defining form of reading and writing (Street & Street, 1991). By examining literacy relationships within the family, specifically those between siblings, more information about the multiple contexts of literacy can be gleaned.

Support for examining children’s development in general, and their literacy development in particular, within multiple contexts can also be found in ecological systems theory. Bronfenbrenner (1979) proposed that children’s development proceeds within a number of overlapping systems, which include home and school. Risk is defined less by the factors within each system than by the links or ‘protective mechanisms’ between them (Rutter, 1987). In this way, challenges within one context can be ameliorated by strong links to other systems where resources can be found, for example, the school, the home, and the people found in each of these settings. Robust links between the home and school, specifically between siblings and their teachers, may provide a resiliency mechanism to children who come from homes where reading is not valued. Johnson and Howard (2007) suggested resiliency mechanisms can redirect the life trajectories of children at risk and open up opportunities such as those that accompany school completion.

Method

Participants

The children attended Year 2 classrooms in two public schools in the inner city of Winnipeg. Half the children were boys. The schools were chosen on community demographics and mainly served children from low socio-economic backgrounds. In the area of our study, 49.5% of households were low income, compared with 15.5% for the rest of Winnipeg. Of the households in the area, 54.5% (twice that of the rest of Winnipeg) had an income less than \$20,000. Failure to complete school is correlated with low income—55% of people over age 15 in the area did not hold a high-school diploma, compared with 28% in the rest of Winnipeg. The incidence of people with less than a Year 9 education was 21.2% in the area compared to 7.8% for the rest of Winnipeg (Winnipeg, 2001). Participants of this study were purposely selected to represent this group. Furthermore, we believed that these children in particular would benefit from a field trip to a bookstore as well as enjoying the 44 books they chose for their classroom libraries as part of a larger study.

Procedures

This study was part of a larger study of children’s literacy development. The focus of the larger study was to invite 44 second-grade students to participate in a field trip to a local bookstore where they were asked to select a book (up to \$30 value for each book) for the classroom library. The researcher, the classroom teacher, and two research assistants—one male and one female education student—accompanied the children. After the field trip the children were individually interviewed about their book choices by a research assistant using an audio recorder. After the research

assistant made the child comfortable and was assured of his or her assent, the child was asked questions about his or her reading practices at home to contextualize the findings. The findings of this study were derived from those interviews. At the end of the study, all 44 books were given to the children's classroom libraries.

Analysis

The transcripts were read to get a sense of each child and his or her relationship with reading. Then, the data were imported into NVivo8. All children were given pseudonyms. An embedded within-case analysis (Yin, 2002) and a within-case analysis of themes (Stake, 1995) were generated prior to conducting a cross-case analysis (Miles & Huberman, 1994) where free and tree nodes were used to compare similarities and differences between the children. Free nodes are general, emergent codes that are generated by analysing single or multiple data sources. Tree nodes are analytical structures that emerge from relationships within or between the free nodes. Both categorical and holistic analysis strategies were used, as suggested by Rossman and Rallis (2003). Verification was performed using negative case analysis (Lincoln & Guba, 1985) and member checks (Lincoln & Guba, 1985; Miles & Huberman, 1994).

Tree nodes related to home literacy practices were developed along three themes: children being read to at home; children reading to others at home; and children observing other people reading to themselves at home. The data were examined by source, by node, and then by matrices of nodes by attributes.

Findings

Many children talked about being read to by family members: mothers, fathers, brothers, sisters, and extended family such as cousins and grandmothers. The majority of male and female participants spoke of being read to by their mothers, and mothers were mentioned equally by sons and daughters. Fathers read to their daughters four times more than they read to their sons, and siblings repeated this trend by reading to girls three times more than they read to boys. Sadly, four times as many boys as girls were not read to in the home.

RA: Do others read to you at home?

VALERIE: Actually my mom and my dad read to me. My sisters and that like to read too, because they think they are adults, and they make me sit on the floor. And we play school all the time at home.

While only three of the girls had no one reading to them at home, 14 boys were in this situation.

RA: Does someone at home ever read books to you?

CARTER: (shakes head)

RA: No?

CARTER: I read to myself.

RA: Oh, you read to yourself. How often do you read to yourself?

CARTER: Quietly, and then my brothers come bother me.

RA: Oh, do you read everyday, or just sometimes?

CARTER: Sometimes.

RA: Does anyone at home read to you?

MARK: No, not yet, I need to wait for somebody. There's nobody at home that will read.

RA: So nobody at home reads to you?

MARK: (shakes head). Ah, I just put myself to sleep.

Children were then asked who they read to at home. In this case, ten times fewer boys read to someone at home than did girls.

RA: Do you like to read, Dan?

DAN: My favourite one is sharks, dolphins and sharks. It tells you like what their weight is and what their length is. I have like this bug book, at school, and this fish book at school, and then this other bug book that's really short, and a chapter book of a bug book.

RA: Do you ever read books at home?

DAN: Hm, no.

RA: You don't really read to anybody at home?

DAN: No. 'Cuz they don't mostly like, the, like reading.

RA: Yeah, do you ever read to other people at home?

BRITANNY: Yeah, I tutor my cousin.

RA: Oh really?

BRITTANY: 'Cuz she's eight like me, but she's uh, not a quick learner.

While girls read equally to parents and siblings, boys read twice as much to siblings as girls read to siblings or parents, and twice as much as boys read to parents.

RA: Do you read to anyone at home?

RAYMOND: Mm just my brothers.

RA: Oh, how old is your brother?

RAYMOND: Two and three.

RA: Oh, you read to your younger brothers?

RAYMOND: I mean one and two.

RA: Oh, what do you read to them?

RAYMOND: My grandma got me Bob the Builder and Little Bear. And Mortimer.

RA: But do you ever read to somebody else? Like, do you have a brother or a sister or a mom or a dad you read to?

OSCAR: Yes, so like sometimes I go to my dad's, and there's books there. And I read it to my little brother and my little sister.

RA: Do you read to others at home?

TYLER: My little sister

RA: How often?

TYLER: Five books a night.

RA: What do you read her?

TYLER: Her kind of books, like with princess stuff.

It was interesting to note how often the children commented on reading to siblings, both older siblings and younger. One child went so far as to suggest that her sister's reading preferences would dictate her own preferences, supporting a strong sibling influence.

VALERIE: We have these big blue books—they are Bibles. We have a whole bunch of Bibles, and then we have, a lot, a lot, a lot of writing things, like books there. We really read them sometimes, but not really. My sister doesn't like them, and if she doesn't like them, I don't like them.

The final questions in the tree nodes related to children's observation of reading models in the home. In this case, the incidence of parents reading to boys and girls was similar, with mothers reading more often than fathers. Twice as many girls had a reading model in the home as did boys.

It was interesting to observe children's understanding of the word 'reading'. When asked what they saw others in the home reading, some children responded with traditional responses of print materials such as books and newspapers while others broadened the definition to include reading mail and recipes.

RA: Does anyone else at home read?

DAVID: No. Only the newspaper.

RA: Oh, the newspaper. Who reads the newspaper?

DAVID: My dad, my step dad, and my baby sister's real dad.

RA: Oh, okay.

DAVID: And my mom does.

RA: Your mom reads the newspaper too?

DAVID: Mm hmm.

RA: Okay. Do you ever see anybody else at home reading? Because you said you had brothers and sisters at home?

OSCAR: Yeah, like my sister plays like games, like Wii, like Family Feud.

RA: Oh, so she has to read when she plays games.

OSCAR: Like reading stuff on the games. And you have to spell something like, it's a guessing game, well, like you have to know it. Like on Family Feud, you have to guess the numbers, like three and stuff.

RA: Do you ever see others in your home reading?

DAWSON: Yeah

RA: Who?

DAWSON: My big sister, my mom, and my step dad.

RA: What do they usually read?

DAWSON: Um, my mom reads the mail, because she needs to see if our [television] cable will get cut off.

RA: Okay. Does anybody read anything else?

DAWSON: Um, my big sister reads lots of books.

Discussion

The children's responses paint an interesting and gendered view of reading in the home. Some of the findings were expected and others were not. As expected, mothers read to children more than did fathers. This finding is well supported in the literature, showing that those who read to children in the home are usually women (Clark et al., 2008). Furthermore, many of the children in our study did not have fathers or adult males living in their homes. While the finding may be attributed to traditional gender roles within the home, it may also have a pragmatic basis in that the mother may have been the only adult available to read to the children.

A surprising second finding was many of the children in our study were not read to in their homes nor did they follow parental reading models. Furthermore, of the children who were read to, girls were read to more often than boys. The relatively small number of parents who read to their children is troubling, given that Scher and Baker (1996) showed that 96% of the parents in the socio-economically diverse sample they studied reported that their children liked having someone read to them. Other studies have shown that 90% of middle-income parents report reading daily to their children whereas only 52% of low-income parents do so. Our study, which was conducted with children of inner city, low-income families, showed an even lower incidence of parents reading to children (according to the children). This finding is contrary to self-reporting research from parents, who reported that they read as often to their sons as to their daughters. The contradiction could be a result of the flaws inherent in self-report data (such as faulty recall, limited knowledge, or social desirability effects) (Yarosz & Barnett, 2001) or it may be the result of differing perspectives of parent and child respondents.

Given that children's reading habits are tied to parental encouragement, even when socio-economic status is controlled (Neuman, 1986), the small number of parents who read to their children is very discouraging. Moreover, children's attitudes towards, and performance in, reading have been tied to parental attitudes. Csikszentmihalyi (1991) showed that when children observe adults reading they

come to see reading as a valued activity. When parents fail to read to their children and do not demonstrate that reading is a valued activity by reading for themselves, they limit literacy opportunities in the home to the extent that there may be a significant impact on children's subsequent reading performance (Raz & Bryant, 1990).

Our third finding was that many of the children in our study, especially the boys, not only had no adults read to them and had few opportunities to observe adults reading, they also had little to no experience in reading to adults in the home. Reading performance is tied to reading practice. That is, the more children read, the better readers they become (Scarborough & Dobrich, 1994). The boys in our study were losing out on practice opportunities in their homes, practice opportunities that were taken up to a far greater degree by girls. As being proficient in reading is closely tied to school success, parental support for learning to read and valuing reading is an important component of school success.

Although the parent-child reading interactions described by the boys in our study suggest that homes are not a rich literacy environment for many boys, a surprising and fourth finding gives cause for optimism. We were very interested to find that boys were twice as likely to read to siblings than any other combination (girls reading to parents, girls reading to siblings, boys reading to parents). This suggests that many boys *are* reading in the home, yet the ways that they are engaged differ from those of girls. A survey of the sparse research literature on sibling reading interactions in the home uncovered no mention of similar gender effects, suggesting that this is a fruitful area for future research.

Implications for early reading practice

The current findings are new and demonstrated with only a small sample of inner city children. Further large-scale studies are necessary to indicate if the findings are repeatable in other home environments. Furthermore, observations of sibling literacy interactions in the home are necessary to alleviate the challenges of self-reporting data and to contextualise the frequency, duration, quality, and content of sibling literacy activities. Notwithstanding this limitation, there are several implications for classroom teachers.

First, many classroom teachers incorporate home reading programs in their school planning. Often, children are asked to read to a parent. Given that not all parents are fluent in the language of instruction, some are busy with work or child care, and some simply do not value reading, teachers would be wise to consider asking children to read with siblings. This recommendation is especially appropriate for male students, who seem to read with siblings more than any other group. The boys and girls we studied mentioned reading to and being read to by both older and younger siblings, supporting the synergy in this relationship suggested by Gregory (2001).

While reading with an older (more advanced) sibling may provide opportunities for remediation, correction, and structure, reading with younger

siblings supports positive attitudes towards reading and can foster a sense of reading as entertainment rather than simple skill development. The view of reading as pleasure based rather than skill based is associated with greater motivation to read (Scher & Baker, 1996; Sonnenschein & Munsterman, 2002). Research shows that children (and adults) are much more likely to initiate, sustain, and complete a task if they are intrinsically motivated. Intrinsic motivation, which can take the form of enjoyment or interest (Deci & Ryan, 1987) is fostered when children have pleasurable literacy experiences (McKenna, 1994).

If teachers consider siblings as a reading resource for the children in their classes, a second recommendation is considering the likely levels of interest and enjoyment in sibling based literacy activities they assign. Enjoyment and interest are instrumental for ensuring children complete the tasks assigned. Implicit in this recommendation is a broader view of literacy such as that proposed by Street (1993, 1995) and Gee (1996). Evidence that children see reading as more than simply reading books was evident in the comments made by the children in our study. Reading mail, reading recipes, and reading from computers and video games were also viewed as legitimate uses of reading. Use of computers has been shown to help increase boys' performance in school, especially poorly performing boys (Bangert-Drowns et al., 1985; Niemiec & Walberg, 1985). Comprehension, as measured by richness of story retelling, is improved when children read from computer based books rather than traditional texts (Doty et al., 2001; Pearman, 2003). Aside from elevated achievement, use of computers is related to more positive attitudes in boys. Whitley (1997) conducted a meta-analysis of 82 studies and found that boys have more positive attitudes toward computers than do girls. Hull and Schultz (2001) viewed these activities as legitimate opportunities to create meaningful links between home and school literacy. Creative assignments that engage children in fun, home-based sibling literacy activities may promote better reading and attitudes toward reading in children, especially boys. Better attitudes toward reading are associated with more time spent on leisure reading (Greaney & Hegarty, 1987), suggesting that attitudes and practice time are cyclically linked.

Of course, not all children have siblings with whom to share reading, although most children will have a sibling within four years of their own age (Baydar et al., 1997). So, these recommendations will work for most, but not all children. Teachers will be required to use their sensitivity and flexibility when assigning tasks. They may suggest that children work with a sibling, but allow children to work with other relatives such as cousins or with neighbours. Furthermore, research has shown that while a moderate amount of responsibility for younger siblings' learning can foster academic achievement in older siblings, large amounts have a negative effect (Smith, 1984). This finding emphasises the importance of ensuring older siblings are not called upon to take a disproportionate amount of responsibility for their younger siblings. Instead, they should be invited to participate in fun activities that build positive literacy attitudes while also encouraging close family relationships.

Our research suggests that some of the gender differences teachers have reported observing in their classrooms are repeated in their students' homes. Rather

than lamenting the absence of male reading models in many homes and being discouraged by the negative attitudes to literacy displayed by some parents, teachers can be encouraged by the possibility of employing siblings to help develop competent readers. Furthermore, Cicirelli (1994) suggested that the role of siblings in family functioning has been recognised in non-industrialised countries and encourages those in industrialised countries to recognise the potential of this valuable group. A systems ecological model would support further investigation of sibling relationships as a catalyst for literacy development and the associated positive attitudes toward reading and school that are so important to school success.

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