

Factors Affecting Inner-city Boys' Reading: Are Male Teachers the Answer?

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Abstract

Eighteen inner-city first and second grade boys participated in a pilot study on the effect of sex of reading teacher on boys' attitudes toward and performance in reading. Each boy participated with either male or female research assistants in a 22-week Paired Reading intervention using texts shown to be of high interest to boys. Findings suggest that these contexts yield significant increases in boys' reading performance, sense of physiological well-being while reading, and their sense of reading progress regardless of the sex of their reading teacher.

Keywords: Boys, reading, male teachers, gender schema

Résumé

Dix-huit garçons du centre-ville en première et deuxième année ont participé dans une étude pilote sur les effets du sexe du professeur de lecture sur les attitudes envers et la performance dans la lecture. Chaque garçon a participé avec ou bien des assistants de recherche male ou femelle dans une intervention de "Paired Reading" de 22 semaines en utilisant des textes prouvés d'être fortement intéressant aux garçons. La recherche suggère que ces contextes donnent des augmentations significantes dans la performance du garçon dans sa lecture, le sens de bien-être physiologique pendant la lecture, et un sens de progrès dans la lecture peu importe le sexe de l'instructeur de lecture.

Mots clés: garçons, lecture, professeurs males, schema de sexe

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Introduction

Since competent reading is the strongest predictor of school success (Adams 1990; Hoffert and Sandberg 2001), it is important to ensure that all young children receive effective reading instruction to master the strategies and skills needed to decode and make meaning from print and text. In this light, findings of recent national and international surveys and studies (Council of Ministers of Education, Canada 1999, 2001; Statistics Canada 2003) are of compelling interest in understanding how boys best learn to read, and the current state of that process. These reports suggest that boys' reading is not simply different; it lags behind the reading competency of girls in Canada as well as in 31 other countries that recently completed skills testing.

It is tempting to respond to these findings with alarm, and some countries, for example, Australia, are proposing implementation of programs to address these claimed needs. In Australian schools, male models are thought to be so important to male students' education that the government considered amending anti-discrimination laws to allow teacher education programs to offer "male-only" scholarships (Discriminating to put more men in the classroom, March 10, 2004). In Ontario, there has been a call for more male teachers, volunteers, and teaching assistants in early years classrooms (Young boys may benefit from more male teachers, July 9, 2003). Surprisingly, these initiatives have been promoted without empirical evidence that the sex of the teacher affects boys' academic outcomes. In this paper, we report the results of a study that examines changes in reading performance and self-perception as a reader in grade two boys who participated in a 22-week reading intervention with male and female reading tutors.

The characterization of boys' literacy levels as deficient and the accompanying impetus for action ignore critical gaps in our knowledge about boys' experiences of reading in school. Surveys and some related research dichotomize reading performance as 'boys versus girls' (Baker and Wigfield 1999; Eccles, Wigfield, Harold, and Blumenfeld 1993; Gambell and Hunter 2000; Labercane and Shapiro 1986; McKenna, Ellsworth, and Kear 1995; Millard 1997; Solsken 1993; Wigfield, Eccles, Yoon, Harold, Arbreton, Freedman-Doan and Blumenfeld 1997). In this context, debate about boys' literacy "deficits" accompanies the promotion of boys as the "new disadvantaged" (Foster, Kimmel and Skelton 2001). This dichotomization obscures and simplifies our understanding of variability within boys' reading performance and leaves us with little direction for creating learning environments that foster boys' reading development.

Other factors within the category of 'boys'— such as low socio-economic status— have been associated with poor reading skills. In the William Whyte area—the area of our study—the incidence of low income is 49.5%, compared

with 15.5% for the rest of Winnipeg. Incomes under \$20,000 are representative of 54.5% of the households in the William Whyte area, double the incidence of the rest of Winnipeg. The low incomes in this area are linked to the lack of school completion—55% of people over age 15 in the William Whyte area do not hold a high school diploma, compared with 28% in the rest of Winnipeg. The incidence of people with less than a grade nine education is 21.2% in the William Whyte area compared to 7.8% for the rest of Winnipeg (<http://winnipeg.ca/census/2001>). Clearly, these data illustrate the relationship between school completion and income levels.

Inner-city Aboriginal boys who cannot read are particularly vulnerable to school failure. Katz and McCluskey (2003) offer a concrete description of these preconditions to failure. In one Manitoba school district in 1996, approximately 10% of 700 students were Aboriginal, but less than 4% of them completed grade 12.

Of the 23 Aboriginal youth who had entered that system in kindergarten, only 1 completed high school. In the same year in another district, only 1 of 25 students who had transferred from northern reserves graduated (McCluskey et al. 2000). Of grade seven students entering a predominantly Aboriginal city high school in September 1998, 17% were tested as reading at or above grade level. Fifty-five percent were reading three or more years below current grade placement. Twenty-nine percent were found to be four or more instructional reading levels below grade placement, or, at grade three or lower reading level. Not surprisingly, in Winnipeg, the school dropout rate is far higher for Aboriginal than for non-Aboriginal youth. While 19.5% (10,415) of non-Aboriginal youth leave school early, 50.3% (3490) of Aboriginals drop out (cf. Social Planning Council of Winnipeg 1999). (p. 117)

It is apparent that many factors are associated with success or failure in reading and in school. Thus, rather than viewing boys as a homogeneous group, the current study considers other demographic variables in its examination of boys' reading development. Within this context, we explore the effects of male reading teachers' use of Paired Reading on inner-city boys' attitudes toward reading and their reading competence. Using the lens of gender schema theory (Bem 1981; Martin and Halverson 1981), we justify why male reading teachers may have more of an impact on some boys than on others and interpret our findings to ascertain which factors are effective in fostering better reading performance in inner-city boys who are struggling readers. We begin with an

exploration of environmental factors that may affect the ways boys come to view reading.

Boys' Experiences of Literacy as Feminine

Research suggests that a reason for some boys' lack of engagement with reading is their perception that it is a feminine activity (Baron 1996; Brophy 1985; Cummings 1994; Government of the UK 2000; Hermine 1998; McKenna 1997; Pottorff, Phelps-Zientarski, and Skovera 1996; Shapiro in Hall 1999). Katz and Sokal (2003) showed that 24% of the second grade Canadian boys they studied viewed reading as feminine.

A variety of people and factors contribute to the perception that reading is feminine. Parental modeling has been broadly explored (see Tenenbaum and Leaper 2002) and is related to the ideas children develop about gender. In the home, the average child is read to for approximately 1000 hours before beginning school (Adams 1990). In many cases the reader is female (Millard 1997; Pottorff, Phelps-Zientarski, and Skovera 1996). When children later enter day care and school, their teachers and models of reading are predominantly female (Basow 1992; Delamont 1990). The culturally influenced predominance of women in the early life of children may create the conditions for a child to perceive reading as a gender-marked behaviour (Millard 1997).

Another situational variable that supports some boys' belief that reading is feminine is the types of books offered to children by parents, teachers, and librarians. Worthy, Moorman and Turner (1999) found that boys preferred comics, scary stories, and magazines. Only one-third of school libraries offer these genres (Worthy, Moorman and Turner 1999) because teachers and librarians do not view them as legitimate reading (Gambell and Hunter 2000). Not surprisingly, many boys do not find school reading to be enjoyable (Ivey and Broaddus 2002).

What makes books boy-friendly? In short, boy-friendly books are books that boys want to read (Moloney 2002). Gambell and Hunter (2000) contend that identification with genre is the most consistently supported explanation for sex differences in reading performance in Canadian youths. Oldfather's (1992) finding that readers become more engaged with the text when they perceive it as being personally meaningful supports this view.

Together, the lack of boy-friendly books at school and home and feminization of early childhood culture may be powerful factors in convincing young boys that reading is a feminine activity. This perception, in turn, may affect some boys' motivation toward reading.

Thus far, we have qualified our exploration of the literature by the term "some boys." Clearly, most boys are neither struggling readers nor unmotivated

to read. Most boys do not understand reading as feminine, and even those who do sometimes maintain their love of reading despite its cross-gendered classification (Katz and Sokal 2003). How are we to approach examination of variability in reading performance and motivation among boys? Gender schema theory provides a lens through which to examine these within-gender differences. Additionally, it provides us with a model through which to investigate which variables are most important in enhancing reading attitudes and performance of different groups of boys. Attention to the diversity in boys' responses to reading is necessary to understand the complex interactions between gender development and reading motivation and to avoid making sweeping program changes aimed at all boys.

Gender Schema Theory as an Explanation for Boys' Reading Performance

Although Katz and Sokal (2003) showed that 24% of second grade boys perceive reading as feminine, they also found that half of those boys indicated that they liked reading. Gender schema theories offer a way of understanding how some boys and not others lack motivation to take part in something that they interpret as a feminine activity (Bem 1981; Liben and Bigler 2002; Martin and Halverson 1981). The theory posits that gender is a multi-dimensional construct that includes gender stereotype knowledge, gender attitudes, gender preferences, and gender schematicity. The two dimensions of interest in this study are gender stereotype knowledge and gender schematicity. *Gender stereotype knowledge* refers to an individual's knowledge of societal gender stereotypes and is thought to be well-developed by middle childhood (Ruble and Martin 1998). *Gender schematicity* refers to an individual's inclination to use gender as a salient schema for interpreting social information. High gender schematic individuals use gender schema to help understand and categorize their environments; low gender schematic individuals will use other schemata, such as interest in an activity.

High gender schematicity results from children's exposure to and internalization of environments where the importance of gender classification is stressed—an environment more familiar to boys than to girls. Research suggests that boys who participate in cross-gender-stereotyped activities are viewed more negatively than girls who do so (Bussey and Perry 1982; Levy, Taylor, and Gelman 1995; Martin 1990; Sandnabba and Ahlberg 1999). Boys are more likely to receive negative social consequences for cross-gender-stereotyped play (Fagot 1977, 1989; Zucker, Wilson-Smith, Kurita, and Stern 1995) and are punished more for cross-gender-stereotyped play than girls (Heilbrun, Wydra, and Friedburg 1989). Millard (1997) suggests that the most powerful influence on some boys' lack of motivation to read may be peer culture

pressure. Given the negative consequences experienced when boy cross gender lines, not surprisingly, research suggests boys are more gender schematic than girls (Carter and Levy 1988; Levy 1989; Sokal 2000, 2001).

When one considers the paucity of male role models of reading and lack of exposure to boy-friendly texts previously mentioned, it is reasonable to assume that boys may come to view reading as feminine. Katz and Sokal (2003) have shown, however, that gender schematicity acts as a mediating factor between boys' feminized views of reading and their reading preferences. They found that boys who view reading as feminine and dislike reading are more gender schematic than boys who view reading as feminine and like reading. This suggests that understanding the relationship between the various dimensions of gender development may also have implications for our understanding of boys' reading motivation and preferences. If some boys come to perceive reading as a feminine activity due to their experience with female reading models and unengaging texts, it may be possible to modify these perceptions. Exposure to male reading teachers may encourage some boys to re-classify reading as a masculine or gender-neutral activity which could, in turn, lead to more positive attitudes toward reading and better reading for some boys.

The Importance of Male Models

Children's observations of same-sex role models are important to gender identity development (Golombok and Fivush 1994; Martin and Halverson 1981). From theoretical and pragmatic perspectives, the effects of male models on young boys are therefore worthy of investigation. Gender schema theories predict that children's cognitive structures develop within a reciprocal relationship with experiences (Martin and Halverson 1981). As children's experiences grow, they begin to organize them into categories of "like me" and "unlike me." While children learn the cultural stereotypes associated with both sexes, they learn more about their own sex. By age six, children can reliably make predictions about other same-sexed children's behaviours, and by age eight they can also make predictions about the behaviours of children of the other sex (Martin 1993).

The question yet to be addressed, however, involves the relative influence of male teachers on boys' gender development. While most theories suggest that same-sex models are important, few explore teacher effects in isolation. In the context of the anti-discrimination debate in Australia, Dumbrell claims that there is no academic research to suggest that gender imbalances in teaching staff composition has had a negative effect on children's education (A good man is hard to find—Fewer than one in three teachers male, March 12, 2004). The limited literature on this topic supports Dumbrell's claims: Three empirical

studies were found that dealt with this issue, and all three failed to support the importance of male teacher models in the classroom (Carrington and Skelton 2003; Froude 2002; Martin 2003). Given this lack of empirical support, widespread changes to teacher composition seem misguided.

Hypotheses

Our prior research (Katz and Sokal 2003) demonstrated that high interest text can alter boys' attitudes toward school (when read by a female model) and can decrease boys' view of reading as feminine (when read to by a male model). In this study, we wanted to learn whether the sex of the reading model would influence boys' experiences as readers. Would boys who were taught to read high interest text by a male reading teacher experience greater gains in self-perceptions as a reader and in reading performance than boys who were taught to read high interest text by a female reading teacher? Based on prior research that demonstrated positive attitudinal effects when children were exposed to boy-friendly texts read by a reading teacher regardless of the sex of the reading teacher, we hypothesize that the sex of the reading teacher would not affect either of the dependant variables when children were taught to read. Further, we hypothesize that high- gender- schematic boys who believed reading to be a feminine activity would experience significantly less progress in their reading self-efficacy and performance. This hypothesis is based on past research (Sokal and Katz 2004) that showed boys' perceptions of reading as feminine are very difficult to change.

METHOD

Participants

The participants originally included 21 first and second grade boys from an inner-city elementary school in Winnipeg. The school that participated in the study is located in a low socio-economic setting, and its population is comprised mainly of Aboriginal students. This school, like most inner-city schools in Winnipeg, experiences high student turnover rates. As a result, only 18 of the boys originally enrolled were still attending the school at the end of the 22-week intervention. Although this represents a 14% attrition rate, this percentage is much lower than that of a typical year at the study school. Demographic information about the families who participated at study onset is presented in Table 1.

Table 1: Demographic Information

Descriptor	Frequency
<i>Language spoken in the home</i>	
English	20
Other	1
<i>Ethnicity</i>	
Canadian	4
Canadian and Aboriginal	17
<i>Mother's Education</i>	
Less than High School	9
High School	4
College or university	3
<i>Father's Education</i>	
Less than High School	6
High School	3
College or university	8
<i>Family Income</i>	
Less than 20000	11
20001-40000	3
40001-60000	3
60001 or more	1
<i>Work Status of respondent</i>	
Employed full time	1
Employed part-time	5
Unemployed	10
Looking for work	2
<i>Number of siblings</i>	
0-1	7
2	7
3-4	6
<i>Adults living in the home</i>	
Mother only	9
Father only	2
Mother and Father	6
Female guardian	3
Relative	1

Note: Not all families chose to supply all demographic data resulting in totals of less than 21 in some data.

Grades one and two were selected because it has been shown that gender knowledge is established by this age (Blakemore 2001; Serbin and Sprafkin 1986; Weinraub, Clemens, Sockloff, Ethridge, Gracely, and Myers 1984). That is, by the age of seven boys would have solidified their understanding of reading as masculine, feminine or gender neutral. Since we aimed to observe and potentially modify boys' perceptions of reading as feminine, it is important that the participants had achieved this milestone before they began the treatment.

Demographic information indicates that 81% of the boys in the study were Aboriginal, 35% of the fathers had not completed high school, 56% of the mothers had not completed high school, 61% of the families had incomes of less than \$20,000, and 66% of the parents were unemployed or looking for work. These data suggest that William Whyte neighbourhood is representative of many inner-city neighbourhoods and that the students taking part in the study represent the characteristics of many inner-city students.

Instruments

The PM Benchmark Series (Revised)

The PM Benchmark Series (Revised) was administered at six points during the intervention. The series consists of 30 accurately leveled books ranging progressively from kindergarten to grade six and easy-to-use reading and assessment forms for teacher use. The data gathered includes miscues, and unaided or prompted retellings. This diagnostic approach allows for depth of measurement. The data yield instructional and independent reading levels, strategies and sources of information used to recognize words, ability to read for meaning, use of self-monitoring systems and familiarity with print conventions. The PM Benchmark Series is a criterion-referenced rather than a norm-referenced test; that is, it yields information about individual use of reading strategies and skills rather than information about the performance of a child in relation to other children in his/her age cohort. Because we are primarily interested in tracking changes in main aspects of reading proficiency and achievement, a criterion-referenced test is most appropriate to our needs.

Readers' Self-Perception Scale (Henck and Melnick 1995)

Coming to view oneself as a reader is a critical passage in a child's successfully becoming a proficient reader (Stanovich 1986). This scale includes 33 statements on a Likert-type scale, representing five aspects of reader self-efficacy (general perception, progress, observational comparison, social feedback, and physiological state) and yields norm-referenced scores on each

scale, interpretable as high, average or low. Repeated administration yields evidence of possible changes in a boys' view of himself as a reader. This self-perception scale was used at six points over the 22-week intervention and took one half hour to administer.

The Early Reading Attitude Survey

This instrument records a child's general attitude toward reading in the two areas of school reading and home reading. The test consists of 20 questions, ten each related to school and home reading. Responses are measured on a four-point Likert scale in which attitudes ranging from strongly agree to strongly disagree are represented by Garfield the Cat figures each with the appropriate facial expression to suggest the attitude. Scores are given in school, home, and full scale forms. As our definition of reading focuses on reading in school, the former score is of great value to our study. Children completed this inventory before onset of the intervention and again one month after its completion.

Family Background

These variables and the questions that explore them were adapted from the Program for International Student Assessment (Statistics Canada 2003) and are rooted in reading research findings (Purcell-Gates 1994; Teale 1986). This questionnaire was administered to parents at the beginning of the 22-week intervention.

Procedures

Families were approached for parental permission in October, followed by four initial visits of one-half hour duration which allowed the four student research assistants (RAs) to collect baseline data for all children. The children were then randomly selected to work with either male or female research assistants for the duration of the intervention. Each week for 22 weeks, the RAs visited the children twice per week to conduct Paired Reading with the children. In all cases, the books used for the reading were selected based on research about books that hold high interest for boys (Worthy, Moorman and Turner 1999). As the sessions progressed, boys requested books about specific topics (e.g. insects) or books from a specific series (e.g. Dav Pilky's *Captain Underpants*). These requests were used as guides in subsequent book purchasing. In each session, boys were provided with a number of books from which to choose, thus maximizing the likelihood that the book chosen would hold high interest.

Paired Reading is a reading practice approach developed by the Northern Alberta Reading Specialists' Council (1991) based on Topping's research (1987). Based on student control of many aspects of reading including choice of reading material, the process includes duet reading during which student and tutor read simultaneously, and solo reading when the student chooses to read independently. Best reading instructional practices are built into the program. Program evaluation (Northern Alberta Reading Specialists' Council 1991) suggests strong gains in word identification and text comprehension result from use of this approach. Research Assistants were trained in the use of this program before the start of the intervention. Although the children worked with the same sex of RA each week, the RAs alternated working with various children within their treatment group in order to control for individual effects of the RAs. In six of the twenty-two weeks, RAs attended the school for one additional testing session. At these sessions, the PM Benchmark or the RSPS were administered in order to collect longitudinal data.

At the end of the project, all the books used in the research, approximately \$5000 of "boy-friendly" books were donated to the participating school. The children who participated in the project made the presentation to the school at the awards assembly in June.

RESULTS

Given the exploratory nature of the research as well as the small sample size, analyses were restricted to bi-variate correlations, a series of t-tests, and an ANOVA. Post-treatment correlations were conducted on aspects of change in the dependent variables. Table 2 presents correlations between the magnitude of changes in variables from the beginning to the end of the intervention. Analysis yielded four significant correlations.

Table 2. Correlations between Magnitude of Change over the Course of Intervention

	1	2	3	4	5	6	7	8
1. Mother's Education		.056	.024	-.320	.567*	.460	.318	.545*
2. Father's Education			.142	.154	.313	.044	-.090	-.081
3. Family Income				-.243	.284	.352	.358	.265
4. Instructional Reading Level					.304	-.004	-.123	.084
5. Self-perception reading progress						.685**	.027	.148
6. Self-perception physiological state							.235	.248
7. Attitude toward reading (non-school)								.621**
8. Attitude toward reading (school)								

Additional analyses were conducted on the data to determine whether the intervention had a significant effect on participants' reading performance, reading self-efficacy, or their attitudes toward reading.

First, *t*-tests were carried out to determine whether differences between times one and six, and times one and four in results of administration of the PM Benchmark tests for instructional reading level were statistically significant at $p = .05$. Analyses were conducted on data gathered at these time points for two reasons. First, the time four sampling period occurred directly before the holiday break (after 10 weeks of intervention) when many children change schools. Analysis of this shorter duration of intervention allowed us to explore the effectiveness of a shorter (partial) intervention on inner-city children. Second, analysis of the data collected after the full 22 weeks allowed us to gauge the effects of the full intervention. Differences in boys' instructional reading levels were found for both durations of treatment. Instructional reading levels were found to be significantly different from time one ($M = 2.67$, $SD = 3.22$) to four ($M = 7.22$, $SD = 7.54$), ($t = -3.79$, $df = 17$, $p = .001$), and from time one ($M = 2.67$, $SD = 3.22$) to six ($M = 11.44$, $SD = 8.50$), ($t = -5.76$, $df = 17$, $p = .000$).

Instructional reading levels were then converted to grade levels using widely accepted and available text gradient conversion charts. Pre-treatment results ($M = 2.67$) were subtracted from post-treatment results ($M = 11.44$) to gauge the magnitude and direction of change. All changes were positive. The mean gain was 8.77 PM Benchmark units, which converted to a mean grade gain of 1.18 school grades ($Range = .2$ to 4.2 grades; $SD = .10$) over the course of the 22-week intervention.

T-tests were likewise conducted for differences between times one (pre-treatment) and four (10 weeks) and between times one and six (22 weeks) on five aspects of the Reader Self-Perception Survey to determine whether these differences were statistically significant at $p = .05$. Significant differences were found in self-perception of physiological state between time one ($M = 34.53$, $SD = 5.64$) and four ($M = 37.42$, $SD = 1.98$), ($t = 2.75$, $df = 18$, $p = .01$), and in self-perception of progress between time one ($M = 39.32$, $SD = 5.97$) and four ($M = 42.89$, $SD = 3.40$), ($t = 2.45$, $df = 18$, $p = .03$). Significant differences in physiological state between time one ($M = 34.53$, $SD = 5.64$) and six ($M = 38.25$, $SD = 1.70$) were also found ($t = 2.42$, $df = 18$, $p = .03$). As indicated by examination of the means, all changes were in a positive direction.

Two additional *t*-tests were conducted to determine whether boys' attitudes toward reading at school and reading as recreation changed over the course of the intervention. Since we were interested in changes over time, the second administration of the Early Reading Attitude Survey occurred one month after the end of the 22-week intervention. *T*-tests indicated that no statistically significant changes occurred in the boys' attitudes toward reading at school or

as a recreational activity (r 's = .08 and .86, respectively, p 's = .94 and .40, respectively) as a result of the treatment.

Once t -tests had established the effectiveness of the intervention on boys' perceptions of themselves as readers and on their reading performance, one ANOVA was used to investigate whether there were statistically significant differences in the gains made by boys taught by male RAs ($n = 9$) compared to boys taught by female RAs ($n = 9$) over the 22-week intervention. A 2 (RA sex) X 6 (changes to the 5 RSPS scores and PM Benchmark score) ANOVA revealed no significant differences between children taught by male RAs and children taught by female RAs (F range = .01 to 2.7, p range = .12 to .95).

Our final planned analysis was to establish whether high gender-schematic boys who viewed reading as feminine would demonstrate less progress in their reading self-efficacy and performance than other boys. Because all boy participants viewed reading as a masculine activity (rating it as a five on a five-point scale of masculinity), or a gender-neutral activity (rating it with equal scores on both masculinity and femininity scales), it was not possible to conduct analyses of boys who understood reading as a feminine activity.

DISCUSSION

Analyses revealed a number of interesting findings, some expected and some unexpected. While some findings allow multiple interpretations, others provide clear direction for addressing the reading needs of inner-city boys.

Despite Rowan, Knobel, Bigum, and Lankshear's (2002) finding that socio-economic status is an important variable of consideration in boys' literacy, post-treatment correlations between socio-economic status and magnitude of changes to boys' reading self-perceptions and their reading performance were non-significant. This lack of findings may have been an artifact of the sample composition—that is, most boys in the sample were from low-income homes, and a lack of variability may have affected the correlation. In contrast, this finding is meaningful in the sense that significant changes are clearly possible with young boys living in poverty. While socio-economic status is certainly a consideration, it by no means prevents these young boys from making significant reading gains within a quality program.

Other significant post-intervention correlations include positive relationships between mothers' education level and their children's gains in their self-perceptions of reading progress and gains in positive attitudes toward reading at school. As the intervention progressed, boys with more educated mothers perceived a greater sense of their own progress as well as developing better attitudes toward reading at school. This finding is an important reminder that

children are educated in a number of settings, and that parental factors can make meaningful contributions to children's success.

Another significant correlation was found between boys' gains in sense of reading progress and in their physiological state when reading. Progress refers to the child's sense that he is making gains in his reading ability, while physiological state refers to his affect (happiness, calmness, comfort, feelings of enjoyment). Thus, as boys began to perceive their own progress, they also perceived a greater sense of comfort as they read.

It is interesting to note that the boys showed statistically significant gains in these two areas of their reading self-perceptions and not in the other three areas (general perception, observational comparison, social feedback). Lack of change in the general perception scale is easily explained by the RSPS test construction. Whereas each of the other aspects of self-perception is measured by at least five statements, this variable has only one statement of measurement, causing one to question the reliability of this sub-scale. Lack of findings on the other two scales support suspicions that social motivation (Guthrie and Wigfield 1997) may not play the same role in reading for boys as it does for girls. Note that the sub-scales that showed the most differences are the sub-scales that are not linked to feedback from others. Although research has shown that this aspect of reading is an important motivator for girls (Guthrie and Wigfield 1997; Gambell and Hunter 2000), the current research suggests that this is not the case for boys. Rather, scales of boys' self-perceptions that measured affective factors demonstrated greater sensitivity to boys' growth than did scales measuring social factors.

The most important finding is that all children participating in the study showed significant gains in their reading performance. Since competent reading is the strongest predictor of school success (Hoffert and Sandberg 2001) and a view of oneself as a reader is a benchmark of becoming a reader (Adams 1990), increases in these factors promote positive school outcomes which are linked to access to choices of careers and post-secondary schooling in adult life. While the overall grade gain in reading performance was approximately 1.2 grades, some children gained the equivalent of four grades in their reading performance. More inspiring is the fact that these gains were made through only 22 hours of instruction with a student RA rather than a trained classroom teacher. The gains were made despite the many risk factors with which these children live, and they were made without an expensive program, special equipment, or complex training. Similar gains were made in children's perceptions of themselves as readers, specifically in the areas of their progress and their physiological state.

While Paired Reading was shown to be a successful program for addressing boys' reading needs, it is important to examine which factors associated with the intervention were responsible—in isolation or in combination—for the gains experienced by the boys. Several factors such as one-on-one interaction, choice of reading materials, and access to high interest reading materials may have influenced the outcomes.

First, recent work by Worthy, Patterson, Salas, Prater, and Turner (2002) suggests that the most important factor in engaging struggling readers is the relationship between the student and the reading tutor. In their study, reading tutors who took responsibility for their students' learning promoted the greatest gains. That is, these tutors went above expectations to find materials that were interesting to their students, and spent additional time and effort in doing all that was necessary to help their students learn to read. Anecdotal reports from the research assistants employed in our project suggest that this may have also been an important aspect of our study. The RAs came to know the boys well. Several of the RAs held celebrations with their boys at the end of the project. Moreover, some RAs continued to visit their boys after the project was completed so that the boys had the opportunity to finish chapter books begun during the project. Each of these observations suggests that real bonds were formed between the research assistants and their students.

Another aspect for consideration was that the boys in the study were given choices about what they read. The RAs began the study with a selection of books that was gradually expanded based on student interest over the course of the project. Au (1997) and Au, Scheu, Kawakami, and Herman (1990) suggest that choice is an important aspect of successful schooling, especially for children at risk of school failure. Allowing children choice of reading materials may give them a sense of control over the learning process.

Related to the issue of providing choice is the issue of providing high interest materials. Flowerday (2004) recently completed a study where the variables of choice and interest were separated. Her study design allowed for a distinction to be made between the motivation participants experienced when they had choice versus that experienced when they were given high interest materials. Interestingly, it was the exposure to high interest books that was significant in children's motivation to read. Motivational increases that many researchers have attributed to children being provided with choices may actually be more accurately attributed to their opportunity to read high interest materials. That is, as long as the children are interested in the materials, it matters little who actually chose them.

The opportunity to have a selection of high interest reading materials at school is especially important to boys like those who participated in our study – those who live and go to school in the inner city. Research (Neuman and Celano

2001) has shown that these boys are less likely to have access to books in their homes. Public libraries may serve the needs of many readers, but for a variety of reasons—including fear of book loss or damage and attendance fines—some inner-city parents are non-users of public libraries (Katz 1997). Books available through school provide a viable alternative to parents and children.

A cataloguing of children's books in one of the classrooms of the study participants found that over 90% of the 77 books available were outdated, in very poor physical condition, overly pedagogical (for example, phonics workbooks), or clearly oriented to girls and probably of little interest to boys (e.g. *Babysitter's Club* books). While cataloguing books the researcher was approached by a male student who asked what the researcher was doing. When told that the researcher wanted to look at books that were interesting to boys, the student grabbed one of the six books about animals in nature, opened it to a page illustrating with text and photos, and proceeded to accurately explain this complex page of informational text, also explaining that this was only one of a series of books on nature that he liked to read and how interested he was in topics about nature. Clearly, even young boys have distinct reading preferences and are eager to articulate them when asked. Defining "boy-friendly books" is as simple as asking boys what they prefer to read. Furthermore, books that appeal to boys are as diverse as the boys themselves. Teachers must move beyond stereotypes of boyhood if we are to appeal to the interests of all boys.

It is noteworthy that other characteristics of the current intervention—ease of implementation and effectiveness of short-term use—allow it to be used in schools, day cares, or even in homes. Paired Reading is a relatively easy strategy to learn and requires no special materials aside from books in which boys indicate interest. Moreover, the RAs who conducted the intervention were not trained teachers. It is possible that Paired Reading might also be successful when implemented with older students mentoring the reading of younger students in school. This set up would require no cost and may yield significant findings, although further research would be required to validate its effectiveness under these conditions.

The effectiveness of the shorter (10- week) intervention lends itself well to practical application. Suggestions for programming to address the learning needs of inner-city boys must be sensitive to the reality of inner-city life. Given that families in inner-city schools migrate between schools more frequently than do other families in Winnipeg, it is important to create programs that demonstrate results within a short time frame. Although continuity of a reading program over a longer duration showed greater positive results, the results over a shorter time frame were still significant. Teachers, therefore, can begin a Paired Reading

program in their schools confident that even short periods of inclusion are worthwhile, productive endeavors for young boys.

Despite the gains made in their reading self-perceptions and their reading performance, the intervention did not result in gains in other areas. The boys did not show significant growth in their positive attitudes toward academic or recreational reading. This lack of findings can be explained in several ways. First, the boys' initial attitudes toward academic reading ($M=33.19$ of a possible 40) and recreational reading ($M=33.76$ of a possible 40) were fairly positive before the treatment. The initial means on both five-point Likert scales indicate that their attitudes in both areas were better than neutral—in fact, they were positive. Although there was some room for an increase, the initial scores were fairly close to the ceiling before the intervention.

Another possible confounding variable that may have effected measurement of attitudes is the self-report nature of this instrument. Concerns about social desirability effects when using self-report measures with struggling readers may have manifested themselves in our study. The boys' desire to be thought of in a positive way may have affected the data at both collection points—the boys may have indicated more positive attitudes toward reading than they actually felt in order to obtain perceived approval.

A third explanation is also possible. Although there was no significant change in boys' attitudes toward reading, this in itself may be good news. Wigfield et al. (1997) found that children's interest in reading declines most sharply from grade one to grade four. Although we found no significant increase in boys' attitudes towards reading, we also found no significant decrease. A lack of change—holding the status quo—may actually be interpreted as a positive state when compared to the decreases experienced by many other boys.

None of the outcomes of the intervention—performance gains, self-perceptions gains, lack of attitudinal gains—were affected by the sex of the RA. This finding lends support to the research (Carrington and Skelton 2003; Froude 2002; Martin 2003; Shapiro in Hall 1999) that suggests that recent media attention to the declining percentage of male teachers is overstated, at least in its effects on inner-city boys' reading. Our finding supports the positive effects when teachers of either sex implement Paired Reading with texts the children find interesting. This finding bodes especially well for the majority of classrooms, day cares, and homes headed by women (42% of our sample homes), as it supports the positive effects women (and men) can have on young boys' reading. Furthermore, this finding suggests that the factors that contribute to effective teaching of struggling inner-city boys are not dependant on the sex of the research assistant. Good teaching is good teaching, regardless of the teacher's sex.

It is important to note, however, that the sample of boys who took part in this study was homogeneous. They all had positive views of reading and did not view it as feminine. While this sample's homogeneity was unexpected, past research has shown that most boys *do* like reading and most boys *do not* view it as feminine (Katz and Sokal 2003). In fact, the composition of our sample represents the most common category of boys. Possibly, male reading teachers would have affected other boys differently. Perhaps male teachers may have produced greater gains than female teachers in students with feminine views of reading or in those boys who did not like reading. Our sample composition did not allow analysis of this possibility. Rather, it clearly demonstrated that the sex of reading teacher had no effect on the reading performance or self-efficacy of the most common category of boy.

Despite our important findings, these results should be viewed with caution. Given that this research is an exploratory study with a small sample size, the results should be used as cues to the direction of future, larger studies. Furthermore, future studies will be required in order to ascertain the long-term effects of such interventions. One such study is currently underway where many of the factors of the current study will be replicated with a sample of 180 inner-city boys.

Notwithstanding these limitations, the current research was conducted using robust yet simple analyses in accordance with the small sample size. The main findings support the claim that the sex of the reading teacher has no effect on inner-city boys' reading performance or self-perceptions as readers when Paired Reading is implemented through incorporating choices in texts of high interest to boys. Furthermore, the positive effects of this type of intervention are evident in both 10- week and 22- week interventions. Together, these findings suggest that this low-cost, easily implemented program may be effective in supporting the reading needs of young, inner-city boys.

References

- A good man is hard to find—Fewer than one in three teachers male. *Daily Telegraph*, Sydney. March 12, 2004.
- Adams, M. 1990. *Beginning to read*. Cambridge, MA: MIT Press.
- Au, K. H. 1997. Classrooms: Goals, structures and student motivation. *Journal of Educational Psychology* 8: 261- 271.
- Au, K. H., J.A. Scheu, A. J. Kawakami, and P.A. Herman. 1990. Assessment and accountability in a whole literacy curriculum. *The Reading Teacher* 43: 574-578.
- Baker, L., and A. Wigfield. 1999. Dimensions of children's motivation for reading and their relations to reading activity and reading achievement. *Reading Research Quarterly* 3: 452- 477.
- Baron, J. 1996. *Sexism attitudes towards reading in the adult learner population*. (ERIC Reproduction Document No. ED393092). New Jersey: Author.
- Basow, S. 1992. *Gender stereotypes and roles*. California: Brooks/Cole.
- Bem, S. 1981. Gender schema theory: A cognitive account of gender typing. *Psychological Review* 88 (4): 354-364.
- Blakemore, J. E. 2001. *First, third and fifth grader's attitudes about gender norm violations*. Poster presented at the annual meetings of the Society for research in Child Development, Minneapolis, Minnesota.
- Brophy, J.E. 1985. Interactions of male and female students with male and female teachers. In *Gender influences in classroom interactions*, ed. L. Wilkinson and C. Marett, 115-142. Cambridge, MA: Abt.
- Bussey, K., and D.G. Perry. 1982. Same-sex imitation: The avoidance of cross-sex models or acceptance of same-sex models? *Sex Roles* 8: 773-784.
- Carrington, B. and C. Skelton. 2003. Re-thinking 'role models': Equal opportunities in teacher recruitment in England and Wales. *Journal of Educational Policy* 18(3): 253-266.
- Carter, D. B., and G. D. Levy. 1988. Cognitive aspects of children's sex-role development: The influence of gender schemata on preschoolers' memories and preferences for gender-typed toys and activities. *Child Development* 59: 782-793.
- Council of Ministers of Education, Canada. 1999. *Educational indicators in Canada, 1999*. Toronto, Ontario.
- Council of Ministers of Education, Canada. 2001. *Measuring Up: The performance of Canada's youth in reading, mathematics, and science*. Toronto, Ontario.
- Cummings, N. 1994. Eleventh graders view gender differences in reading and math. *Journal of Reading* 38: 196- 199.

- Delamont, S. 1990. *Sex roles and the school*. London: Routledge.
- Discriminating to put more men in the classroom. *The Australian*. March 10, 2004.
- Eccles, J. S. and A. Wigfield. 2002. Motivational beliefs, values and goals. *Annual Review of Psychology* 53: 109- 32.
- Eccles, J., A. Wigfield, R.D. Harold, and P. Blumfield. 1993. Age and gender differences in children's self- and task perceptions during elementary school. *Child Development* 64: 830- 847.
- Fagot, B. 1977. Consequences of moderate cross gender behaviour in preschool children. *Child Development* 48: 902-907.
- Fagot, B. 1989. Cross-gender behaviour and its consequences for boys. *Italian Journal for Clinical and Cultural Psychology* 1: 79-84.
- Fink, R. 1995. Successful Dyslexics: A constructive study of passionate learning interest in reading. *Journal of Adolescent and Adult Literacy* 39: 268-280.
- Flowerday, T., G. Schraw, and J. Stevens. 2004. The role of choice and interest in reader engagement. *Journal of Experimental Education* 72 (2): 93-215.
- Foster, V., M. Kimmel and C. Skelton. 2001. What about the boys? An overview of the debates. In *What about the boys? Issues of masculinity in schools*. W. Martino and B. Meyenn. Buckingham: The Open University Press.
- Froude, L. 2002. Study defies the 'boys need men' credo. *Times Educational Supplement* 4471: 3-9.
- Gambell, T. and D. Hunter. 2000. Surveying gender differences in Canadian school literacy. *Journal of Curriculum Studies* 32(5): 689- 719.
- Golombok, S. and R. Fivush. 1994. *Gender Development*. Cambridge University Press, London, England.
- Government of UK. 2000. *The Standards Site: Gender and Achievement* [On-line]. http://www.standards.dfes.gov.uk/genderandachievement/data_1.2.9.html
- Guthrie, J. T. and A. Wigfield. 1997. *Reading Engagement: Motivating readers through integrated instruction*. Newark, DW: International Reading Association.
- Hall, J. October 25, 1999. Boys need to see male role models read. *Vancouver Sun*, A2.
- Heilbrun, A., D. Wydra, and L. Friedberg. 1989. Parent identification and gender schema development. *Journal of Genetic Psychology* 150 (3): 293-299.
- Henck, W. and S. Melnick. 1995. The Reader Self-Perception Scale (RSPS): A new tool for measuring how children feel about themselves as readers. *The Reading Teacher* 48: 470-482.
- Hermine, F. 1998. *Gender differences in attitude toward reading in a sample of the Jewish community*. (ERIC reproduction document No. ED417378).

New Jersey: Author.

- Hoffert, S.L., and J.F. Sandberg. 2001. How American children spend their time. *Journal of Marriage and the Family* 63(3): 295- 308.
- Ivey, G., and K. Broaddus. 2002. Just plain reading: A survey of what makes students want to read in middle school classrooms. *Reading Research Quarterly* 36: 350 -377.
- Katz, H. 1997. *Portrait of an adult literacy learner*. Unpublished Ph.D. dissertation, University of Alberta, 1997.
- Katz, H., and L. Sokal. 2003. Masculine' Literacy: One Size Does Not Fit All. *Reading Manitoba* 24 (1): 4-8.
- Katz, H. and K.W. McCluskey. 2003. Seeking strength-based approaches in Aboriginal education: The "Three Stars and A Wish" project. *McGill Journal of Education* 38 (1): 116-134.
- Labercane, G., and J. Shapiro. 1986. Gender differences in reading: Sociological versus neurological influences. *Reading Improvement* 23: 82- 89.
- Levy, G. D. 1989. Relations among aspects of children's social environments, gender schematization, gender role knowledge and flexibility. *Sex Roles* 21 (11/12): 803-823.
- Levy, G.D., M.G. Taylor, and S. Gelman. 1995. Tradition and evaluative aspects of flexibility in gender roles, social conventions, moral rules and physical laws. *Child Development* 6: 515-531.
- Liben, L. S., and R.S. Bigler. 2002. The developmental course of gender differentiation. *Monographs of the Society for Research in Child Development* 67 (2, Serial No. 269).
- Martin, A. 2003. Primary school boys' identity formation and the male role model: An exploration of sexual identity and gender identity in the UK through attachment theory. *Sex Education* 3(3): 257- 271.
- Martin, C. L. 1990. Attitudes about children with traditional and non-traditional gender roles. *Sex Roles* 2: 151-165.
- Martin, C.L. 1993. New Directions for assessing children's gender knowledge. *Developmental Review* 13 (2): 184- 204.
- Martin, C. L., and C.F. Halverson. 1981. A schematic processing model of gender typing in children. *Child Development* 52: 1119-1132.
- McKenna, E. 1997. *Gender differences in reading attitudes*. Unpublished master's thesis, Kean College of New Jersey. (Eric Document Reproduction Service No. ED407653).
- McKenna, M., R. Ellsworth, R., and D. Kear. 1995. Children's attitudes toward reading: A national survey. *Reading Research Quarterly* 3: 934- 957.
- Millard, E. 1997. Differently literate: Gender identity and the construction of the developing reader. *Gender and Education* 9 (1): 31-49.

- Moloney, J. 2002. Ideas for getting boys to read. www.home.gil.com.au/~cbcqld/moloney/books7.htm
- Neuman, S. and D. Celano. 2001. Access to print in low-income and middle – income communities: An ecological study of four neighbourhoods. *Reading research Quarterly* 36: 826.
- Northern Alberta Reading Specialists' Council. 1991. *Paired Reading: A reading practice approach*. Kelowna: Filmwest.
- Oldfather, P. 1992. December. *Sharing the ownership of knowing: A constructivist concept for literacy learning*. Paper presented at the annual meeting of the National Reading conference, San Antonio, TX.
- Purcell-Gates, V. 1994. *Relationships between parental literacy skills and functional uses of print and children's ability to learn literacy skills*. Washington, DC: National Institute for Literacy. (ERIC Document Reproduction Service no. ED372 288).
- Pottorff, D.D., D. Phelps-Zientarski, and M.E. Skovera. 1996. Gender perceptions of elementary and middle school students about literacy at school and at home. *Journal of Research and Development in Education* 29: 203- 211.
- Rowan, L., M. Knobel, C. Bigum, and C. Lankshear. 2002. *Boys, literacies and schooling*. Buckingham: Open University Press.
- Ruble, D.N., and C.L. Martin. 2002. Conceptualizing, measuring, and evaluating the developmental course of gender differentiation: Compliments, queries, and quandaries [Review of *The developmental course of gender differentiation*]. *Monographs of the Society for Research in Child Development* 67(2, Serial No. 269).
- Sandnabba, N. K., and C. Ahlberg. 1999. Parents' attitudes and expectations about children's cross-gender play. *Sex Roles* 40 (3 /4): 249-263.
- Serbin, L., and C. Sprafkin. 1986. The salience of gender and the salience of gender typing in three- to seven-year-old children. *Child Development* 5: 1188-1209.
- Sokal, L. 2000. *Mothers, Fathers, Sons and Daughters: Gender Development in the Family Context*. Unpublished doctoral dissertation, University of Manitoba, Manitoba, Canada.
- Sokal, L. 2001. *Gender schematic development within the family context*. Poster presented at the biennial meetings of the Society for Research in Child Development, Minneapolis, Minnesota.
- Sokal, L. and H. Katz. 2004. *Changing boys' feminized attitudes toward reading*. Poster presented at the annual meeting of the American Educational Research Association, San Diego, California.
- Solsken, J.W. 1993. *Literacy, gender and work in families and in school*. Norwood, NJ: Ablex.
- Stanovich, K. E. 1986. Matthew effects in reading: Some consequences of

- individual differences in the acquisition of literacy. *Reading Research Quarterly* 21: 360-407.
- Statistics Canada. 2002. The 2000 Program for Student Assessment repost. http://www.pisa.gc.ca/what_pisa.shtml
- Statistics Canada. 2003. November 25. Education Indicators in Canada (Third Edition). Publication Number 81-852-XPE. Ottawa, Ontario: Author.
- Teale, W. 1986. Home background and young children's literacy development. In *Emergent literacy: Writing and reading*, ed. W. Teale and E. Sulzby. Norwood, NJ: Ablex.
- Tenenbaum, H. R. and C. Leaper. 2002. Are parents' gender schemas related to their children's gender-related cognitions? *Developmental Psychology* 38(4): 615- 630.
- Topping, K. 1987. Paired Reading: A powerful technique for parent use. *The Reading Teacher* 40: 608-614.
- Volkman, B. K. 1992. Enhancing pre-service teachers' self-efficacy through a field-based *program of reflective practice*. Paper presented at the Mid South Western Educational Research Association Annual Conference, 11-13 November, Knoxville, TN.
- Weinraub, M., L.P. Clemens, A. Sockloff, T. Ethridge, E. Gracely, and B. Myers. 1984. The development of sex role stereotypes in the third year: Relationships to gender labelling, gender identity, sex-typed toy preference, and family characteristics. *Children Development* 55: 1493- 1503.
- Wigfield, A., J.S. Eccles, K.S. Yoon, R.D. Harold, A. Arbreton, K. Freedman-Doan, and P.C. Blumenfeld. 1997. Changes in children's competence beliefs and subjective task values across elementary years: A three-year study. *Journal of Educational Psychology* 89: 451- 496.
- Worthy, J., E. Patterson, R. Salas, S. Prater, and M. Turner. 2002. More than just reading: The human factor in reaching resistant readers. *Reading research and Instruction* 41 (2): 177-202.
- Worthy, J., M. Moorman, and M. Turner. 1999. What Johnny likes to read is hard to find at school. *Reading Research Quarterly* 34 (1): 12- 27.
- Young boys may benefit from more male teachers. 2003. *The Hamilton Spectator*. July 9, 2003.
- Zucker, J. Z., D. N. Wilson-Smith, J.A. Kurita, and A. Stern. 1995. Children's appraisals of sex-typed behaviors in their peers. *Sex Roles* 33, 11/12: 703-724.

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