Homeschooled Children's Social Skills

Richard G. Medlin Stetson University

Homeschooled Children's Social Skills

There is a striking irony surrounding homeschooling—perfect strangers seem far more worried about homeschooled children's social development than their own parents do. For example, a survey of public school superintendents found that 92% believed homeschooled children do not receive adequate socialization experiences (Mayberry, Knowles, Ray & Marlow, 1995). Their parents "have real emotional problems themselves," one superintendent asserted, and "need to realize the serious harm they are doing to their children in the long run, educationally and socially" (p. 94). Educational psychologists representing the American Psychological Association published their opinions about homeschooling in the *APA Monitor* (Murray, 1996). These psychologists warned parents that their children may experience difficulty entering "mainstream life" and may not grow up to be "complete people" if taught at home. And a study of parents whose children attended public schools reported that 61% believed homeschooled children were isolated (Gray, 1993). One participant described the "majority" of homeschooled children as "socially handicapped" (p. 10).

In stark contrast to this widespread pessimism and alarm, homeschooling parents are simply "not particularly worried about socialization" (Medlin, 2000, p. 110). They tend to be confident that their children are receiving adequate socialization experiences and that their children's social development is coming along quite nicely (Pitman & Smith, 1991; Reynolds, 1985; Tillman, 1995; Wartes, 1987).

With such dramatic differences of opinion—and with so much apparently at stake for homeschooled children—it is crucial to know who is right. Are homeschooling parents deceiving themselves and crippling their children's social development? Or are the forebodings of others perhaps no more than expressions of ignorance, prejudice, and self interest?

Review of the Research

Research affirms that although homeschooling parents are not worried about their children's social development, they do *care* about it. In fact, they are strongly committed to providing positive socialization experiences for their children (Gray, 1993; Gustafson, 1988; Howell, 1989; Martin, 1997; Mayberry, 1989; Mayberry et al., 1995; Van Galen, 1987; Van Galen & Pitman, 1991). They believe, however, that "socialization is best achieved in an age-integrated setting under the auspices of the family" (Tillman, 1995, p. 5), rather than in a conventional school with its "unnatural" age segregation (Smedley, 1992, p. 13) and institutional culture. Consequently, they make sure that their children regularly take part in a variety of social activities (Delahooke, 1986; Rakestraw, 1988; Ray, 1990, 1997, 2000, 2003; Rudner, 1999; Wartes, 1988, 1990). These activities are purposefully chosen to help children develop leadership abilities and social skills in a positive, affirming environment (Johnson, 1991; Montgomery; 1989). "The perception of homeschooled students as being isolated, uninvolved, and protected from peer contact," therefore, "is simply not supported by the data" (Montgomery, 1989, p. 9). Nevertheless, the social world of homeschooled children is not the same as that of children attending conventional schools (Chatham-Carpenter, 1994). How does this difference affect the development of social skills?

Social behavior in homeschooled children has been studied from three different points of view—from the perspectives of parents, objective observers, and the children themselves. For example, Stough (1992) and Smedley (1992) had parents of homeschooled children and parents of children attending traditional schools complete the *Vineland Adaptive Behavior Scales* (Sparrow, Balla, & Cicchetti, 1984), a widely used measure of social development. While Stough found no significant differences between the groups, Smedley found that homeschooled children received higher scores on the communication, daily living skills, socialization, and social maturity subscales of the test. In a similar study (Lee, 1994), homeschooling parents rated their children higher

than did the parents of conventionally schooled children on the *Adaptive Behavior Inventory for Children* (Mercer & Lewis, 1977).

Francis (1999) matched homeschool children to public school children, and asked their parents to complete the Parent Form of the *Social Skills Rating System* (Gresham & Elliott, 1990). This version of the test measures cooperation, assertiveness, responsibility, self-control, problem behaviors, and also yields a total social skills score. Although homeschooled children received higher scores on all the social skills subscales, and lower scores on the problem behavior subscale, only the self-control and total scores were significantly different.

In one of the most methodologically astute studies of homeschooled children, Shyers (1992a, 1992b) carefully matched homeschooled children to children attending traditional schools. Naive observers then watched small groups of the children playing or working together to solve puzzles. The results were striking—children attending conventional schools showed more than eight times more problem behaviors than homeschooled children. Shyers described the traditionally schooled children as "aggressive, loud, and competitive" (1992b, p. 6). In contrast, the homeschooled children acted in friendly, positive ways. He noted that they introduced themselves, initiated conversation, cooperated with others, invited uninvolved children to join them in play, took turns, let others know it was alright if they lost a game, and even "exchanged addresses and phone numbers for future contact" (Shyers, 1992b, p. 194).

Galloway (Galloway, 1998; Galloway & Sutton, 1997) used objective records to compare college students who had been homeschooled in high school to those who had attended public or private high schools. She evaluated the students on more than 60 indicators of college performance grouped into five categories: academic, cognitive, social, spiritual, and psychomotor. For example, academic indicators included measures such as grade point average and class rank. Homeschooled students led the others by a large margin in every category except psychomotor skills. Since many of

these indicators involved positions of leadership, Galloway concluded that homeschooled students were readily recognized for their leadership abilities. In fact, her results were so one-sided that she felt justified in making a rather provocative statement: "I don't ever want to hear again that homeschooled children are socially inept" (Galloway, 1998).

Research from the perspective of homeschooled children themselves is rare, and few of these studies have examined genuine social skills. Most self-report studies have measured self esteem (Hedin, 1991; Kitchen, 1991; Kelley, 1991; Lee, 1994; Medlin, 1993, 1994; Shyers, 1992a, 1992b; Stough, 1992; Taylor, 1986; Tillman, 1995). McEntire (in press) found that homeschooled children engaged in fewer antisocial and self-destructive behaviors than a matched group of public school students. Ray (2003) studied adults who were homeschooled as children and reported that they are more involved in civic affairs and less likely to be convicted of a crime than the general population (see also Knowles & Muchmore, 1995; Ray, 1997; Webb, 1990). Montgomery (1989) interviewed homeschooled adolescents and concluded that homeschooling helped them develop leadership skills. In the study described earlier, Shyers (1992a, 1992b) also tested assertiveness, but did not find a significant difference between homeschooled children and children attending conventional schools. Kingston & Medlin (in press) reported that homeschooled children described themselves as more altruistic than public school children did.

In conclusion, the available studies show either no difference between homeschooled children and other children, or a difference favoring homeschooled children. They suggest that homeschooled children's social skills "are certainly no worse than those of children attending conventional schools, and are probably better" (Medlin, 2000, p. 116). The available studies, however, are few and often not focused on specific social skills. More research, especially from the perspectives of objective observers and of homeschooled children themselves, is clearly needed.

The Present Research

The purpose of this study was to examine social skills in homeschooled children from their own point of view. There is a danger, of course, in asking children to evaluate their own behavior. They are likely to lack the objectivity and sophistication of parents or other adult observers. However, they experience the social exchanges in which they participate with an intimacy and immediacy that no outside observer can. And they judge the success or failure of those exchanges according to criteria that adults may not even be aware of. Without this perspective, therefore, children's social skills cannot be fully understood.

It was hypothesized that homeschooled children's scores on a self-report test of four key social skills—cooperation, assertiveness, empathy, and self-control—would be higher than those of the public school children who formed the standardization sample for the test. This difference was expected to become increasingly obvious as grade level increased. Among the homeschooled children, girls were expected to have better social skills than boys.

Method

Participants

Homeschool Group. Seventy homeschooled children—32 boys and 38 girls in grades 3 through 6—participated in this research. Table 1 shows the number of boys and girls in each grade with their mean ages. All these children were White. Participants were volunteers from two homeschool support groups. Both groups were explicitly Christian, and both were located in the same community in Central Florida. As children provided the data for this study, demographic information about their families other than ethnic background was not recorded. Previous research on this population, however, has indicated that these homeschoolers tend to be Protestant, are more highly educated than the general population, and have a family income slightly higher than the median four-person family income for the state of Florida as a whole

(Kingston & Medlin, in press; United States Census Bureau, 2004). All these children had been homeschooled for at least two consecutive years.

Comparison Group. The standardization sample for the test of social skills used in this research—the Social Skills Rating System (Gresham & Elliott, 1990)—served as the comparison group. This sample included 1,170 public school children from grades 3 through 6, with approximately equal numbers of boys and girls at each grade level. Children were randomly selected from among volunteers in 20 different communities throughout the United States, but the largest group (35.5%) came from the South. Slightly more than half were from small towns or suburban communities. The sample was more ethnically diverse than the homeschool group: 72.3% were White, 20.1% were African-American, 3.8% were Hispanic, and 3.6% belonged to other ethnic groups. A subset (64%) of the children's parents also participated in the standardization research. These parents were described as "better educated than the population as a whole" (Gresham & Elliott, 1990, p. 103). No information concerning their socio-economic status was reported.

Materials and Procedure

All participants completed the *Social Skills Rating System* (*SSRS*), Student Form, Elementary Level (Gresham & Elliott, 1990). This self-report measure consists of 34 items such as: "I make friends easily," "I feel sorry for others when bad things happen to them," "I tell others when I am upset with them," and "I ask friends for help with my problems." Children indicate how often each behavior occurs—never, sometimes, or very often.

The *SSRS* yields subscale scores for Cooperation, Assertiveness, Empathy, and Self-Control as well as a Total score. According to the test manual (Gresham & Elliott, 1990, p. 2), the Cooperation subscale assesses "behaviors such as helping others, sharing materials, and complying with rules and directions," while the Assertiveness subscale measures "initiating behaviors, such as asking others for information, introducing

oneself, and responding to the actions of others," The Empathy scale assesses "behaviors that show concern and respect for others' feelings and viewpoints," and the Self-Control subscale measures behaviors "such as responding appropriately to teasing, . . . taking turns, and compromising." Total scores—the sum of the four subscale scores—can be converted into percentile ranks and into standard scores with a mean of 100 and a standard deviation of 15.

The reliability of the Student Form of the *SSRS* has been evaluated using both internal consistency and test-retest methods. With the internal consistency method, values of coefficient alpha ranged from a low of .51 for the Assertiveness subscale to a high of .86 for Total scores. With the test-retest method, correlation coefficients ranged from a low of .52 for the Assertiveness and Self-Control subscales to a high of .68 for Total scores (Gresham & Elliott, 1990).

The validity of the *SSRS* has been examined in terms of content, criterion-related, and construct validity. In order to establish content validity, *SSRS* items were derived from "a broad survey of the empirical literature on the assessment and training of social skills in children and adolescents" (Gresham & Elliott, 1990, p. 112) and then evaluated for their importance to healthy social development by teachers, parents, and students. Studies evaluating criterion-related validity of the Student Form have found low to moderate negative correlations (-.12 to -.43) with a test of problem behaviors and low to moderate positive correlations (.12 to .34) with a test of self-esteem. In one study of construct validity, children's social skills were rated by the children themselves, their parents, and their teachers. The correlation coefficients generated by this research were relatively low: parent-child correlations ranged from .03 to .12, while teacher-child correlations ranged from .10 to .29 (Gresham & Elliott, 1990).

Nevertheless, the test authors concluded that their research confirms the *SSRS* as a "reasonable, useful, and efficient approach to the assessment of social skills" (Gresham & Elliott, 1990. p. 142). An independent review of the test in comparison with

five other measures of children's social skills concluded that "the psychometric properties of the *SSRS* are excellent" (Demaray & Ruffalo, 1995, p. 6).

Results

Mean *SSRS* Total scores, converted to percentile ranks, are presented in Table 2. These percentile ranks ranged from a low of 55 for the fifth-grade boys to a high of 94 for the sixth-grade boys. All of them exceeded the average for public school students in the standardization sample, the 50th percentile.

A series of *t*-tests was calculated to determine if mean Total scores for the children in this study were significantly different from those of the standardization sample (with groups matched for gender and grade). The results of this analysis are presented in Table 3. Total scores for fifth-grade girls, and for sixth-grade boys and girls, were significantly higher than those of the standardization sample.

Mean Cooperation, Assertiveness, Empathy, and Self-Control subscale scores are presented in Tables 4-7 along with mean subscale scores for the standardization sample. Notice that 27 of the 32 mean scores for the children in this study were higher than those of the standardization sample. Only the third-grade girls' Self-Control score, the fourth-grade boys' Assertiveness and Self-Control scores, and the fifth-grade boys' Assertiveness and Empathy scores were lower.

A series of *t*-tests was computed to compare mean subscale scores of the children in this study to those of the standardization sample (with groups matched for gender and grade). The results of this analysis are presented in Tables 8-11. Fourth-grade girls scored significantly higher than the standardization sample in Empathy. For fifth-grade girls, all four subscale mean scores were significantly higher than those of the standardization sample, and for sixth-grade boys and girls, three out of four were: Cooperation, Assertiveness, and Empathy for boys, and Cooperation, Empathy, and Self-Control for girls.

For *SSRS* Total scores, and for each of the four subscale scores, and analysis of variance (ANOVA) was calculated with grade and gender as the factors. There were no significant effects of grade or gender on Total scores or on Cooperation subscale scores. There was a significant effect of gender on Assertiveness scores, F(1,62) = 4.12, p = .047, and on Empathy subscale scores, F(1,62) = 7.47, p = .008. In both cases, girls' scores were higher than boys'. There was a significant grade by gender interaction for Self-Control subscale scores, as girls had higher scores than boys in the lower grades while boys had higher scores than girls in the sixth grade.

Discussion

Homeschooled children's social skills scores were consistently higher than those of public school students. Differences were most marked for girls and for older children, and encompassed all four of the specific skills tested: cooperation, assertiveness, empathy, and self-control. Among homeschooled children, girls were more empathetic and assertive than boys, and at the lower grades, more self-controlled. These results mirror gender differences found among public school children—girls tend to have better social skills than boys in grades 3 through 6 (Gresham & Elliott, 1990).

Several inferences can be drawn from the pattern of results. For homeschooled boys, *SSRS* subscale scores—especially Cooperation scores—were generally higher than those of public school boys, but only the sixth graders' scores were significantly different. And as only two sixth-grade, homeschooled boys participated in this study, these differences must be interpreted with caution. The most appropriate conclusion for homeschooled boys, therefore, would once again be that their social skills "are certainly no worse than those of children attending conventional schools, and are probably better" (Medlin, 2000, p. 116).

For homeschooled girls, *SSRS* subscale scores were typically higher for fifth graders than for sixth graders, suggesting that homeschooled girls were not simply maturing earlier than public school girls (or than homeschooled boys, for that matter).

Instead, their scores were generally higher than those of other children across all grade levels. For homeschooled girls, therefore, the results of this study agree with previous research that found homeschooled children to have better social skills than children attending traditional schools.

A few methodological issues are worth discussing briefly. First, not all homeschooling families, of course, choose to join support groups. Those that do may be especially interested in the social activities such groups offer. "Isolated" homeschooled children, therefore, may have been missing from the sample used in this study. Also, the homeschool and comparison groups here were not comparable in ways that may have affected the results. Ethnic background was certainly different, while ideological homogeneity, parental education, family income, and other variables were probably different. And although all the homeschooled children had been homeschooled for at least two consecutive years, the total number of years each child had been homeschooled was not recorded. Critics of homeschooling, however, usually argue that it is the act of homeschooling itself—specifically, the act of removing children from an institutional school and the social contacts available there—that is isolating (Gray, 1993; Mayberry, Knowles, Ray & Marlow, 1995; Murray, 1996). If this is true, then membership in support groups and demographic variables, and even to some extent the amount of time children have been homeschooled, should make little difference—all homeschooled children should behave as if they are being deprived of normal socialization experiences. The results of this study are clearly not consistent with this argument. Finally, as this study was based on a self-report measure, it is reasonable to ask if homeschooled children may be more given to presenting themselves in an unrealistically positive light than public school children are. In fact, previous research suggests that the opposite is true (Kingston & Medlin, in press). These results, therefore, can be considered at least as valid as those of other self-report studies.

Although the results of this study are consistent with previous research, social skills are complex, and more research is clearly needed. Many studies of homeschooled children's social behavior (including this one) are too simplistic. Social skills should not be viewed as static traits, and cannot be fully understood using paper-and-pencil tests. They involve dynamic, interactive processes that should be examined in the natural, everyday settings that make up children's social lives. Social behavior occurs in context, and tests such as the *SSRS* may be measuring social opportunities—what circumstances allow or encourage children to do—as much as they are measuring social abilities. And more attention must be given to the way homeschooled children learn social skills, rather than simply to the end result of this learning. How homeschooled children develop complex interpersonal skills over time needs to emerge as a prominent question. The strategies such research requires—naturalistic observation, interactional analysis, qualitative studies, longitudinal designs—are largely missing from the homeschool literature.

In conclusion, homeschooled children in this study described themselves as more cooperative, assertive, empathetic, and self-controlled than public school children did. There appears to be, therefore, a convergence of evidence from three different perspectives—parental report, objective observers, and self-report—that homeschooled children's social skills are exceptional.

References

- Chatham-Carpenter, A. (1994). Home versus public schoolers: Differing social opportunities. *Home School Researcher*, 10(1), 15-24.
- Delahooke, M. M. (1986). Home educated children's social/emotional adjustment and academic achievement: A comparative study. Unpublished doctoral dissertation, California School of Professional Psychology, Los Angeles.
- Demaray M. K. & Ruffalo, S. L. (1995). Social skills assessment: A comparative evaluation of six published rating scales. *School Psychology Review*, 24, 648-675.
- Galloway, R. S. (1998, June). *The home schooled students' potential for success in college*. Paper presented at the Florida Homeschool Convention, Orlando, FL.
- Galloway, R. S. & Sutton, J. P. (1997, October). *College success of students from three high school settings: Christian school, home school, and public school.* Paper presented at the National Christian Home Educators Leadership Conference, Boston, MA.
- Gray, S. (1993). Why some parents choose to home school. *Home School Researcher*, 9(4), 1-12.
- Gustafson, S. K. (1988). A study of home schooling: Parental motivation and goals. *Home School Researcher*, 4(2), 4-12.
- Hedin, N. S. (1991) Self-concept of Baptist children in three educational settings. *Home School Researcher*, 7(3), 1-5.
- Howell, J. R. (1989). Reasons for selecting home schooling in the Chattanooga, Tennessee vicinity. *Home School Researcher*, *5*(2), 11-14.
- Johnson, K. C. (1991). Socialization practices of Christian home school educators in the state of Virginia. *Home School Researcher*, 7(1), 9-16.
- Kelley, S. W. (1991). Socialization of home schooled children: A self-concept study. *Home School Researcher*, 7(4), 1-12.
- Kingston, S.T. & Medlin, R. G. (In press). Empathy, altruism, and moral development in home schooled children. *Home School Researcher*.

- Kitchen, P. (1991). Socialization of home school children versus conventional school children. *Home School Researcher*, 7(3), 7-13.
- Knowles, G. J. & Muchmore, J. A. (1995). Yep! We're grown-up home-schooled kids and we're doing just fine, thank you! *Journal of Research on Christian Education*, 4(1), 35-56.
- Lee, W. J. (1994). The socialization of home-schooled and public-schooled children.

 Unpublished doctoral dissertation, University of La Verne, La Verne, CA.
- Martin, M. (1997). *Homeschooling: Parents' reactions*. Unpublished manuscript. (ERIC Document Reproduction Service No. ED415984)
- Mayberry, M. (1989). Home-based education in the United States: Demographics, motivations and educational implications. *Educational Review*, 41, 171-180.
- Mayberry, M., & Knowles, J. G. (1989). Family unit objectives of parents who teach their children: Ideological and pedagogical orientations to home schooling. *Urban Review*, 21, 209-225.
- Mayberry, M., Knowles, J. G., Ray, B. & Marlow, S. (1995). *Home Schooling: Parents as Educators*. Thousand Oaks, CA: Corwin Press.
- Medlin, R. G. (1993). [Home educated children's scores on the Piers-Harris Children's Self-Concept Scale]. Unpublished raw data.
- Medlin, R. G. (1994). Predictors of academic achievement in home educated children: Aptitude, self-concept, and pedagogical practices. *Home School Researcher*, 10(3), 1-7.
- Medlin, R. G. (1995). Homeschooling: What's hard? What helps? *Home School Researcher*, 11(4), 1-6.
- Medlin, R. G. (1998, September/October). For homeschooled children, the social contacts are diverse. *Homeschooling Today*, 7(5), 51-52.
- Medlin, R. G. (2000). Homeschooling and the question of socialization. *Peabody Journal* of Education, 75(1-2), 107-123

- Mercer, J. R., & Lewis, J. F. (1977). *System of multicultural pluralistic assessment: Parent interview manual.* Cleveland, OH: The Psychological Corporation.
- Montgomery, L. (1989). The effect of home schooling on the leadership skills of home schooled students. *Home School Researcher*, *5*(1), 1-10.
- Murray, B. (1996, December). Home schools: How do they affect children? *APA Monitor* [on-line], 27. Available: www.apa.org/monitor/dec96/home.html.
- Pitman M. A., & Smith, M. L. (1991). Culture acquisition in an intentional American community: A single case. In J. Van Galen & M. A. Pitman (Eds.), *Home schooling:*Political, historical, and pedagogical perspectives (pp. 77-97). Norwood, NJ: Ablex.
- Rakestraw, J. F. (1988). Home schooling in Alabama. Home School Researcher, 4(4), 1-6.
- Ray, B. D. (1990). A nationwide study of home education: Family characteristics, legal matters, and student achievement. Salem, OR: NHERI Publications.
- Ray, B. D. (1997). Strengths of their own. Salem, OR: NHERI Publications.
- Ray, Brian D. (2000). *Worldwide Guide to Homeschooling*. Nashville: Broadman and Holman.
- Ray, Brian D. (2003). Adults Who Were Home Educated. Salem, OR: NHERI Publications.
- Reynolds, P. L. (1985). *How home school families operate on a day-to-day basis: Three case studies.* Unpublished doctoral dissertation, Brigham Young University, Provo, UT.
- Rudner, L. M. (1999). Scholastic achievement and demographic characteristics of home school students in 1998. *Education Policy Analysis Archives* [on-line], 7(8). Available: www.epaa.asu.edu.
- Shyers, L. E. (1992a). A comparison of social adjustment between home and traditionally schooled students. Unpublished doctoral dissertation, University of Florida, Gainesville.
- Shyers, L. E. (1992b). A comparison of social adjustment between home and traditionally schooled students. *Home School Researcher*, 8(3), 1-8.

- Smedley, T. C. (1992). Socialization of home school children. *Home School Researcher*, 8(3), 9-16.
- Sparrow, S. S., Balla, D. A., & Cicchetti, D. V. (1984). Vineland Adaptive Behavior Scales: Survey form manual, interview edition. Circle Pines, MN: American Guidance Service.
- Stough, L. (1992). Social and emotional status of home schooled children and conventionally schooled children in West Virginia. Unpublished master's thesis, University of West Virginia, Morgantown, WV.
- Taylor, J. W. V. (1986). Self-concept in home-schooling children. *Home School Researcher*, 2(2), 1-3.
- Tillman, V. D. (1995). Home schoolers, self-esteem, and socialization. *Home School Researcher*, 11(3), 1-6.
- Unites States Census Bureau. (2004). Four-person median family income by state.

 Available: www.census.gov/hhes/www/income.html4-Person Median Family
 Income by State.
- Van Galen, J. A. (1987). Explaining home education: Parents' accounts of their decisions to teach their own children. *Urban Review*, 19, 161-177.
- Van Galen, J., & Pitman, M. A. (1991). *Home schooling: Political, historical, and pedagogical perspectives.* Norwood, NJ: Ablex.
- Wartes, J. (1987). Report from the 1986 home school testing and descriptive information about Washington's home schoolers: A summary. *Home School Researcher*, 3(1), 1-4.
- Wartes, J. (1988). Summary of two reports from the Washington Homeschool Research Project, 1987. *Home School Researcher*, 4(2), 1-4.
- Wartes, J. (1990). Recent results from the Washington Homeschool Research Project. *Home School Researcher*, 6(4), 1-7.

Webb, J. (1990). Children learning at home. Bristol, PA: Falmer Press.

Table 1The Number of Boys and Girls in Each Grade with Their Mean Ages

Grade	Boys	Girls	Total	Mean Age in Years
3	14	8	22	9.2
4	5	11	16	10.3
5	11	9	20	11.0
6	2	10	12	12.0

Table 2

Mean SSRS Total Scores Converted to Percentile Ranks

Grade	Boys	Girls
3	66	58
4	66	70
5	55	88
6	94	75

Table 3Results of **t**-test Analyses Comparing SSRS Total Scores of Homeschooled Children to Public School Children in the Standardization Sample

Grade	Boys	Girls
3	t(289) = 1.13	t(285) = 0.27
4	t(304) = 0.47	t(325) = 1.49
5	t(307) = 1.02	$t(300) = 5.17^{3}$
6	$t(310) = 3.37^{3}$	$t(274) = 2.35^{1}$

¹ *p* <.05

p < .01

p < .001

Table 4Mean Cooperation Subscale Scores for Homeschooled Children and for Public School Children in the Standardization Sample

Grade	Homeschoole d Boys	Public School Boys	Homeschoole d Girls	Public School Girls
3	14.9	13.6	15.5	14.9
4	16.2	14.0	15.0	14.8
5	15.0	13.2	16.8	14.7
6	16.0	13.0	16.6	14.6

Table 5Mean Assertiveness Subscale Scores for Homeschooled Children and for Public School Children in the Standardization Sample

Grade	Homeschoole d Boys	Public School Boys	Homeschoole d Girls	Public School Girls
3	13.6	12.6	14.3	13.4
4	12.6	12.8	14.6	13.3
5	12.0	12.1	15.7	13.5
6	13.5	11.9	14.6	13.2

Table 6Mean Empathy Subscale Scores for Homeschooled Children and for Public School Children in the Standardization Sample

C 1.	Homeschoole d Boys	Public School Boys	Homeschoole d Girls	Public School Girls
Grade	a boys	Boys	u Giiis	GIIIS
3	15.3	15.1	16.3	16.3
4	16.4	15.0	18.3	16.3
5	14.8	14.5	18.8	16.3
6	17.5	14.5	18.1	16.5

Table 7Mean Self-Control Subscale Scores for Homeschooled Children and for Public School Children in the Standardization Sample

Grade	Homeschoole d Boys	Public School Boys	Homeschoole d Girls	Public School Girls
3	11.6	10.6	12.0	12.2
4	10.2	10.4	13.1	11.7
5	11.5	9.5	14.2	11.3
6	18.5	9.3	13.1	10.8

Table 8 Results of **t**-test Analyses Comparing Cooperation Subscale Scores of Homeschooled Children to Public School Children in the Standardization Sample

Grade	Boys	Girls
3	t(289) = 1.25	t(285) = 0.38
4	t(304) = 1.07	t(325) = 0.14
5	t(307) = 1.28	$t(300) = 3.07^{2}$
6	$t(310) = 2.11^{1}$	$t(274) = 2.06^{1}$

¹ *p* <.05

p < .01

Table 9Results of **t**-test Analyses Comparing Assertiveness Subscale Scores of Homeschooled Children to Public School Children in the Standardization Sample

Grade	Boys	Girls
3	t(289) = 1.36	t(285) = 0.57
4	t(304) = -0.10	t(325) = 1.36
5	t(307) = -0.08	$t(300) = 2.69^{2}$
6	$t(310) = 2.19^{1}$	t(294) = 1.27

¹ *p* <.05

p < .01

p < .001

Table 10 Results of **t**-test Analyses Comparing Empathy Subscale Scores of Homeschooled Children to Public School Children in the Standardization Sample

Grade	Boys	Girls
3	t(289) = 0.24	t(285) = 0.22
4	t(304) = 1.10	$t(325) = 4.11^{3}$
5	t(307) = 0.30	$t(300) = 4.32^{\circ}$
6	$t(310) = 4.08^{3}$	$t(294) = 2.44^{1}$

¹ *p* < .05 ² *p* < .01 ³ *p* < .001

Table 11

Results of **t**-test Analyses Comparing Self-Control Subscale Scores of Homeschooled Children to Public School Children in the Standardization Sample

Grade	Boys	Girls
3	t(289) = 1.15	t(285) = -0.01
4	t(304) = -0.10	t(325) = 1.14
5	t(307) = 1.84	$t(300) = 4.31^{3}$
6	t(310) = 1.86	$t(294) = 2.78^{2}$

p < .05

This is an accepted manuscript of an article published by the National Home Education Research Institute in *Home School Researcher* in 2007, available online at: http://www.nheri.org/home-school-researcher/

REFERENCE:

Medlin, R. G. (2007). Homeschooled children's social skills. *Home School Researcher*, 17 (1), 1-8.

p < .01

p < .001