This study examined the treatment of girls versus boys in Catholic elementary schools, building on the national studies of Dr. Myra Sadker and Dr. David Sadker, which have demonstrated bias against girls in American classrooms and curriculum. Subjects were 879 male and 868 female students from 81 classrooms (grades K-8) in 41 Catholic elementary schools of the Archdiocese of Louisville (Kentucky). Classroom observations lasted 40 minutes each and included coding of the Sadkers' INTERSECT research instrument. Teachers' comments were grouped into four categories: praise, acceptance, remediation, and criticism, and the percentages of each type were compared to those of the Sadkers' previous studies. This study found parallel numbers, but also demonstrated a higher number of praise responses in primary versus junior high classrooms. It also found that male students receive more attention in all categories, with the greatest difference in remediation. (Contains anecdotal evidence of gender bias and general suggestions to combat it.) (EV)
Gender Equity in the Catholic Elementary Schools

by

Melody D'Ambrosio & Patricia S. Hammer
National Catholic Education Association Conference
April 10, 1996

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Patricia S. Hammer
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During the last twenty years research has uncovered insights into how teachers interact differently with male and female students. Both genders are sitting in the same classroom environment and learning the same material but experiencing very different things. The studies suggest that from the early grades through the university level, female students are victims of subtle bias that manifests itself through teacher interactions and the curriculum. Consider these national findings. Compared with girls, boys are:

- five times as likely to receive the most attention from teachers
- eight times as likely to call out in class, which helps explain why they "out talk" girls by a ratio of three to one.

According to national standardized test scores, girls start out equal or ahead of boys in academic skills. By the time students graduate from high school, the pattern is reversed. According to the National Assessment of Education Progress, the gap between male and female achievement in Math and Science is staggering. No other group attending our nation's schools starts out ahead and finishes behind. In 1990, the American Association of University Women conducted a self-esteem survey for boys and girls. A gap was established between both genders with girls experiencing the more negative effects. As they entered adolescence, the gap widened with things becoming worse for the girls. In 1992, the AAUW in conjunction with the
Wellesley College Center for Research on Women published a study "How Schools Shortchange Girls" that addressed the discrepancies in achievement in schools of male and female students. The study also provided 40 recommendations for change. After centuries of struggling to gain an education, females have found that access does not guarantee equity. Walls of subtle bias continue to create different educational environments, channeling men and women toward separate but unequal futures.

The findings of the research over the years has prompted the passage of Title IX of the Education Amendment Act of 1972 which stated that discrimination on the basis of sex is illegal in any educational program - academic or athletic that receives federal funding. In 1974 Congress passed the Women's Educational Equity Act to fund research, materials and training to help schools alleviate sex bias. Congress passed the Civil Rights Act of 1978 to include educational services to eliminate sex bias. Most recently, the Gender Equity Act of the Elementary and Secondary Education Act in 1994 allotted money to be spent in federal education programs for non-sexist teacher training, to combat sexual harassment and to help pregnant teens.

Our research was the outgrowth of the research done in schools for the
last two decades by the late Dr. Myra Sadker and her husband Dr. David Sadker. Their book, *Failing at Fairness: How America's Schools Cheat Girls* was filled with numerous studies done on the national level and depicted examples of gender bias in teacher interactions, the curriculum, in children's books and the physical environment of a school. After gaining permission to perform the study within the Archdiocese of Louisville, we trained with Dr. David Sadker and became proficient with the Sadker research instrument INTERSECT. This would be our research tool and our research would be patterned after their national studies. We coded responses initiated by the teacher to either males, females or the group. Teacher interactions were coded as praise, acceptance, remediation or criticism. Each classroom observation would last 40 minutes. The first 10 minutes was spent gathering anecdotal information in the classroom - such as seating arrangements and classroom decorations. The remaining 30 minutes was spent coding with the INTERSECT instrument.

Our study took us to 41 of the 44 Catholic elementary schools of the Archdiocese within the county. Observations were conducted in 81 classrooms, seeing a total of 1,747 students; 879 males and 868 females. Surprisingly that is a 50% breakdown. Thirty three primary classrooms (K-3) were observed, totaling 657 students of which 338 (51%) were
male and 319 (49%) were female. Twenty three middle school classrooms (4-6) were observed, totaling 512 students of which 259 (51%) were male and 253 (49%) were female. Twenty five junior high school classes (7&8) were observed, totaling 578 students of which 282 (49%) were males and 296 (51%) were females.

**Data Findings**

Overall the ratio of boys to girls was approximately 50%. A total of 4,473 different observations were recorded. Of those, 52% or 2,2348 of the responses went to males; 44% or 1,967 responses went to females and 4% or 158 responses went to the group. Responses that are made to the group are of no educational value and teachers should try to eliminate them. An equitable balance of interactions would fall between 47.5% and 52.5%. When analyzing the total number of responses, the teachers are equitable in the number of responses to males but fall slightly in the number of responses to girls. If the group responses were eliminated and given to the girls, an equal balance would have been achieved.

The Sadkers' studies found that more than 50% of all teacher responses are acceptances, such as "OK" and "uh huh". These non-specific reactions offer little instructional feedback. Teachers use remediation more
than 30% of the time, helping students correct or improve their answers. Only 10% of the time do teachers actually praise students. Criticism is used even less. Our study parallels that to almost the exact number. We found 51% of the responses were acceptance, 27% were for remediation, 17% were for praise and 5% were for criticism.

We separated our data according to grade levels also. The number of praise responses was significantly higher in the primary level as opposed to the junior high level. Otherwise, our findings are close.

Responses

**National Studies**

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<table>
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<tr>
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<tbody>
<tr>
<td>Praise</td>
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<tr>
<td>Acceptance</td>
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</tr>
<tr>
<td>Remediation</td>
<td>30%</td>
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<tr>
<td>Criticism</td>
<td>&lt; 10%</td>
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**Louisville Catholic Elementary Schools**

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<tr>
<td>Praise</td>
<td>17%</td>
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<tr>
<td>Acceptance</td>
<td>51%</td>
</tr>
<tr>
<td>Remediation</td>
<td>27%</td>
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<tr>
<td>Criticism</td>
<td>5 %</td>
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**Primary Level**

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<tr>
<td>Praise</td>
<td>22%</td>
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<tr>
<td>Acceptance</td>
<td>49%</td>
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<tr>
<td>Remediation</td>
<td>26%</td>
</tr>
<tr>
<td>Criticism</td>
<td>6 %</td>
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Middle Grades

Praise 12%
Acceptance 52%
Remediation 30%
Criticism 6%

Junior High

Praise 14%
Acceptance 52%
Remediation 30%
Criticism 6%

When analyzing the data for gender differences, we found that male students are receiving more of the teacher's attention in all categories. The most formidable difference was in the Remediation category where male students are receiving the attention as either the result of a corrective measure or to redirect their focus in answering a question.

We suggest that educators analyze the subtle messages given to female students when they see male students receiving more of the attention in the classroom. The choice of classroom decorations, textbooks, supplementary materials, assignment of classroom jobs and seating arrangements all influence gender equity in the classroom. Although textbooks may be predetermined by the school system, teachers are able to adjust the curriculum to address the needs of their students. We conducted a sampling of 240 students in our Science classes to see if they could
identify any female scientists. Only ten were able to answer. The responses were Marie Curie and the two authors of this article who happened to be the junior high Science teachers. Marie Curie was an interesting choice since her own career was tainted by gender bias. Although she did the work, her husband Pierre received the credit for her discovery. At that point in history it was not appropriate work for a woman. This sampling led us to adjust our curriculum to include women scientists.

Anecdotal stories that we collect constantly enforce the findings of our research and show us that educators need to be aware of this. We have heard quotes from administrators and teachers like "boys are much more enjoyable to teach and far more eager to learn". We have seen end of the year Kindergarten Awards given out with Male and Female categories. Some typical boys' awards are - Very Best Thinker, Most Imaginative, Most Scientific and Most Eager to Learn. These are contrasted to the girls' awards which are - Sweetest Personality, Best Sharer, Best Manners and Best Helper. A Computer teacher states that boys prefer Math and Science oriented games while the girls pick the games that are creative but of a less complex nature. A computer software salesman advises a parent to buy the game "Wheel of Fortune" for her daughter rather than the more intricate
games because " girls don't like those ".

The classroom is a microcosm of society. As educators we need to examine our own biases and see if we are transferring them to our students. We should decorate our classroom in an appealing way to both genders and provide role models that do not adhere to stereotypical roles. We should arrange seating that integrates gender and employ cooperative learning strategies that enhances interactions of all students. The teacher needs to be aware of her own questioning techniques and patterns of responses. It is also helpful to critically analyze learning materials for bias. We found that open, honest discussions with our classes on gender equity built up trust and rapport. We learned a great deal from our students and how they perceived their own roles in the classroom. A climate of gender equity can be achieved in the elementary classroom with a mutual teacher-student awareness working positively so that each student can realize their full potential.

Melody D' Ambrosio & Patricia S. Hammer
Bibliography


Total Interactions

- Primary K-3: 657 students
- Middle 4-6: 512 students
- Jr High 7-8: 578 students

- Male
- Female
- Group

984
862
796
626
479
34
102
0
Total Interactions

- Male
- Female
- Group

Interactions
- 139
- 102
- 25

Acceptance
- 139
- 70
- 26

Praise
- 471
- 70
- 5

Remediation
- 381
- 25
- 0

Criticism
- 349
- 26
- 0
Total Interactions
Primary K-3

- Praise: Male 210, Female 202, Group 19
- Acceptance: Male 436, Female 442, Group 70
- Remediation: Male 293, Female 193, Group 11
- Criticism: Male 45, Female 25, Group 2
Total Interactions

Middle 4-6

- Male
- Female
- Group

Total Interactions

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Type of Interaction

- Praise: 398
- Acceptance: 249
- Remediation: 180
- Criticism: 103

Gender

- Male: 340
- Female: 249
- Group: 100

Number of Interactions

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<th>Female</th>
<th>Group</th>
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<td>249</td>
<td>100</td>
</tr>
<tr>
<td>Acceptance</td>
<td>250</td>
<td>180</td>
<td>103</td>
</tr>
<tr>
<td>Remediation</td>
<td>150</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Criticism</td>
<td>50</td>
<td>30</td>
<td>10</td>
</tr>
</tbody>
</table>
Total Interactions
Jr High 7-8

- Praise: Male 68, Female 71, Group 6
- Acceptance: Male 284, Female 295, Group 11
- Remediation: Male 168, Female 98, Group 5
- Criticism: Male 48, Female 15, Group 0
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