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Research Brief

Single-sex classes

Question: What does the research say about the benefits of single-sex classes?

Summary of Findings:

Online Resources:

In the early 1990s, the AAUW published research on how girls were getting shortchanged in the classroom. This research stated that girls were not called upon as often as boys and that boys were given more teacher attention and academic support than girls. This research was followed up and validated by Myra Sadker and David Sadker. Another finding was that girls took a good deal less advanced mathematics and science courses than did boys. Based on this body of research, there was a national push to get more girls involved in math and science, along with more attention paid to treating girls in the same manner as boys. Some single-sex courses and schools were also established as a means of addressing these issues. As of the 2003-2004 school year, there were 24 public single-sex schools operating in the United States. (See Brighter Choice Charter Schools)

The research that has been conducted on single-sex schools and classes, has for the most part, been done in the private school and college realm, primarily because very few public schools established single-sex programs. One of the consistent findings has been that with so much emphasis having been placed on the development of girls, that boys are now the group being shortchanged, especially in the areas of reading and writing. Title IX, the gender equity act, has also had a hand in keeping single-sex schools and courses to a minimum. What the courts have upheld is that single-sex courses and schools may function if the curriculum presented is identical and there is equal access.

In 1998, the AAUW published a surprising report stating that single-sex classrooms may not be better than coeducational settings. What it did identify as beneficial was small class size, a focused and well-structured instructional program without bias, and a lack of stereotyping.

There is agreement on the research findings that in single-sex courses and classes girls do score slightly higher on tests. The groups that seem to benefit most from this arrangement tend to be students who are considered to be at-risk, those from minority groups, and those who come from low socio-economic backgrounds.

Major Findings and Conclusions:

Benefits for girls

- More interest in and enthusiasm for math and science
- More academically inclined
- Spend more time studying and doing homework
- Spend more time on task in the classroom



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- More open to discuss sensitive issues and concerns
- More likely to study more advanced levels of mathematics and science
- Access more information on choosing careers in mathematics and science
- Learn how to be more competitive
- Accept and develop leadership roles
- Fewer gender distractions
- Less likely to have stereotypical views of females in the workplace

Benefits for boys

- Better chance of being on the college preparatory road
- More development of reading and writing skills
- Better chance of not dropping out of high school
- More open to discuss sensitive issues and concerns
- Learn collaborative working strategies
- Fewer gender distractions
- Less likely to have stereotypical views of females

Online Resources:

- Brighter Choice Charter Schools

This site is rich in research that supports single-sex education. It also includes a list of the 24 public single-sex schools in the United States.

http://www.brighterchoice.org/single_sex.htm

<<All Ed Week resources require an account name>>

- Evidence on single-sex schooling is mixed

This provides a brief review of research information and data on single-sex schooling. Little conclusive evidence for either way was found.

<http://www.edweek.org/ew/newstory.cfm?slug=40gender.h21>

- News articles from Michael Gurian's Home Page

These articles cover Gurian's work about the differences in males and females, and how they learn.

<http://www.michaelgurian.com/usa.htm>

- N.J. axes single sex classes

A brief article on the discontinuation of the single-sex classes in a middle school because it was believed to be a violation of Title IX.

<http://www.edweek.org/ew/vol-18/13briefs.h18#single>



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- Private co-ed schools find benefit in single-sex classes
An overview and rationale of some reasons for setting up single-sex courses.
<http://www.edweek.org/ew/vol-17/30coed.h17>
- Report casts doubt on the value of single-sex schooling
The report by AAUW in 1998 stating that classroom conditions contribute more to academic success than single-sex classes is described in this article.
<http://www.edweek.org/ew/vol-17/27aauw.h17>
- Science, Math, and Girls
An overview of the movement to have more girls take advanced math and science classes is presented. It provides some suggestions for getting more of them to choose these fields as vocations.
<http://www.edweek.org/ew/ewstory.cfm?slug=02campbe.h19>
- Separate-sex science shortchanges students
This article recommends on-going teacher training and pedagogy that reflects best practices in order to close the gender gap.
<http://www.edweek.org/ew/vol-16/19weld.h16>
- Single gender public schooling as a new form of school choice
This is a lengthy review of research on single-sex programs.
Click on "For More Information" for this report.
<http://www.edweek.org/ew/ewstory.cfm?slug=38gender.h20>
- Study cites flaws in single-sex public schools
A description of single-sex schools that were set up in California in the mid-1990s and why only one is still in operation is the basis of this article.
<http://www.edweek.org/ew/ewstory.cfm?slug=38gender.h20>
- Teaching and learning: Gender gap in math achievement closing, analysis finds
A very brief article citing a few reasons why 12th grade girls scored low on the 3rd International Mathematics and Science Study.
<http://www.edweek.org/ew/ewstory.cfm?slug=41tl.h19&keywords=gender%20differences>
- The silent gender gap
A report of research that determined boys are now being shortchanged academically.
<http://www.edweek.org/ew/ewstory.cfm?slug=12riordan.h19&keywords=gender%20differences>
- Troubled NJ school turns to single-sex classes
An overview of a middle school program in New Jersey that went to single-sex classes is described. It reports that initial growth seemed to be more positive for girls than for boys.
<http://www.edweek.org/ew/vol-14/25nj.h14>



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- Where the boys are
This report is about the deficits seen in the education of males, especially in the area of writing.
<http://www.edweek.org/ew/vol-15/38sommer.h15>
- Where the girls are
This is a response to Where the Boys Are from David Sadker.
<http://www.edweek.org/ew/vol-16/01sadker.h16>

Books:

- Gurian, M., & Ballew, A. C. (2003). *The boys and girls learn differently action guide for teachers*. John Wiley & Sons: San Francisco, CA.
This book provides an overview of brain research and different ways in which to effectively utilize that information to help students learn. It is divided into topics such as discipline, nutrition, special education, math, science, and spatial learning, and language, reading, writing, and social science, then into school levels (i.e. preschool, elementary, middle, high school).
- Gurian, M. (2001). *Boys and girls learn differently*. John Wiley & Sons: San Francisco, CA.
Information on brain-based research is initially presented. The book is then divided into school levels (i.e. preschool, elementary, middle, high school) where more research on how each group learns and the differences between how each gender learns at the specific level are discussed.

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